

May 6, 1998

To: J. P. Bressanelli
From: K. J. Houseknecht
Subject: Environmental Follow-up Actions to 3/11/98 Board Meeting

The following actions have been taken concerning our environmental program:

1. Boiler House Separator System
The drawings arrived at CDF on 5/1/98. The drawings have been reviewed by the power house employees, Slates and Houseknecht as of 5/6/98. The 2800 gallon sludge tank was delivered the week of 4/27/98. The clarifier is due on 5/8/98.
2. Lagoon #3, ODOT
Rick is monitoring this situation. Ref letter dated 3/20/98 from Dreger to Pierko.
3. PCB Contaminated Transformers
The Die Shop Transformer #1, Main Transformers #2 & #4 will be retrofilled during a power shut down in June. The work is covered in X-Order #1524 and PO #100692.
4. Hammer Permits
Copy of 8/15/97 proposal from Environmental Quality Management, Inc. sent to JPB on 5/6/98 to cover this work.
5. Asbestos Program
Ron Guidetti of Core Network and Mike Karl of Air Analysis Inc. inspected the plant on 4/30/98 and reviewed my report from 1992. A plan of action is forthcoming.
6. Die Cleaning (Eliminate Kerosene)
Brad is considering not purchasing any more Kerosene. Using Safety Kleen for handling the mineral spirits in solvent tanks should also be considered.
7. Restroom / Showers Discharge
A septic tank is in place at the Guard House and at the Beaver Building. Septic tanks are not a problem as far as we know. The main office showers go directly to lagoon #2. This flow can and will be routed to the sanitary sewer system. This low priority item will be completed by the end of August.
8. Underground Storage Tank
The quench oil tank was pumped out on 5/6/98. An inspection will be scheduled as soon as the manhole cover is removed.

CDF005011



2(b)

March 12, 1998

To: K. J. Houseknecht

From: J. P. Bressanelli

Subject: Environmental Follow-up Actions to 3/11/98 Board Meeting

The following actions are to be taken as soon as possible concerning our environmental program:

1. Boiler House Separator System

We must choose the company to handle this project by 3/13/98. You, Bill Price and I will decide on payment schedule for the project, also on 3/13/98.

one tank here
drawing here
whistle to quote
installation - next week

2. Lagoon #3, ODOT

No action needed on our part, Rick will monitor ODOT situation.

- agreed not to test
our property.

3. PCB Contaminated Transformer

Hire company to reduce pcb's to below 50 ppm, estimate \$6,000.

\$20,000

\$6000
4 oil filled circuit breakers
1 not working - repair
check other 3
\$8,000 - 4 poles

4. Hammer Permits

Review our recent history on this - provide copies of relevant recent memos, etc. to me. Otherwise, no action until next Board meeting

Title 5 - 13 hammers
included as sources
of particulate/VOC
emission
Die Cleaning
Squaw Sanders / EQ
permit w/only ~5000/yr

5. Asbestos Program

Get quotes for an asbestos inspection.

Con

6. Die Cleaning (Eliminate Kerosene)

The die storage attendant (Paul Schneider) told me that the water soluble cleaning solution he tried was effective in cleaning dies, but people complained about its fumes. Discuss with me.

7. Restroom / Showers Discharge

Discuss with me.

Restroom → leach field - no problem
Showers - lagoon 2 - shift sanding to
the sewer.

8. Underground Storage Tank

Hire outside firm to inspect and test interior of quench oil tank.

visual inspect
UT inspect for thickness

JPB/mkb

CCS: BAA & WDP ✓✓

Jerry



March 12, 1998

2(b)

To: K. J. Houseknecht

From: J. P. Bressanelli

Subject: Environmental Follow-up Actions to 3/11/98 Board Meeting

The following actions are to be taken as soon as possible concerning our environmental program:

1. Boiler House Separator System

We must choose the company to handle this project by 3/13/98. You, Bill Price and I will decide on payment schedule for the project, also on 3/13/98.

June 5 / 11005 Dave

2. Lagoon #3, ODOT

No action needed on our part, Rick will monitor ODOT situation.

3. PCB Contaminated Transformer

Hire company to reduce pcb's to below 50 ppm, estimate \$6,000.

4. Hammer Permits

Review our recent history on this - provide copies of relevant recent memos, etc. to me. Otherwise, no action until next Board meeting.

5. Asbestos Program

Get quotes for an asbestos inspection.

LAB = 7/11/98 JPB

6. Die Cleaning (Eliminate Kerosene)

The die storage attendant (Paul Schneider) told me that the water soluble cleaning solution he tried was effective in cleaning dies, but people complained about its fumes. Discuss with me.

7. Restroom / Showers Discharge

Discuss with me.

*9/9 + 24 sec 6
undoubtedly*

8. Underground Storage Tank

Hire outside firm to inspect and test interior of quench oil tank.

Jerry

JPB/mkb

CDF005013



CAMPBELL OIL CO.

MASS. 833-8555, AK. 253-8392
NEW PHILA. 343-7031, WOOS. 262-4911

Facility Name: Canton Drop Forge
Facility ID: 15-76-00-0073

[Handwritten signature]

1/25/96 WE
SUBMITTED INFORMA-
TION ON HAMMERS
EXHAUST
ETC AS PART OF THE
TITLE V PERMIT
APPLICATION. *[Handwritten signature]*

ice parts washer containing mineral spirits; surface dimensions 5' x 32"

Ohio EPA ID: Z013

Emission Unit ID: Parts Washer No. 2

Type of emissions source: Insignificant source

Installation date: 00/00

Startup date: 00/00

Most recent modification date: 00/00

Description: General maintenance parts washer containing mineral spirits; surface dimensions 30" x 30"

Ohio EPA ID: Z014

Emission Unit ID: Hammer Location A

Type of emissions source: Insignificant source

Installation date: 00/00

Startup date: 00/00

Most recent modification date: 00/00

Description: Drop hammer for forging steel into specific shapes using dies and a die lube/kerosene mixture

Ohio EPA ID: Z015

Emission Unit ID: Hammer Location B

Type of emissions source: Insignificant source

Installation date: 00/00

Startup date: 00/00

Most recent modification date: 00/00

Description: Drop hammer for forging steel into specific shapes using dies and a die lube/kerosene mixture



CAMPBELL OIL CO.
MASS. 833-8555, AK. 251-8392
NEW PHILA. 343-7011, WOODS. 262-4911

Facility Name: **Canton Drop Forge**
Facility ID: **15-76-00-0073**
Title: **Z028 EF 96**

ncy

Reporting Form: Emissions Unit Information

4/15/97 WE REPORTED
THE EMISSIONS FROM
THE STEAM EXHAUST
FOR 1996

KENTH

Report

☐ Emissions statement

☐ Emissions inventory

3. OEPA ID(s): **Steam Exhaust (Z028)**

5. Select an SCC ID and complete the table below:

SCC ID: **3-09-999-99**

User Description for SCC (optional):

SCC operating rate units: **Tons Processed**

SCC Annual Operating Rate [SCC Units]: **14.13000**

Ash [%]:

Maximum Hourly Operating Rate [SCC Units]: **0.110**

Sulfur [%]:

SCC Comments:

6. Emissions information:

SCC ID: **3-09-999-99**

Pollutant ID: **Particulate Matter**

Emissions Method Description: **Material balance using engineering knowledge of the process**

Overall Efficiency Method: **Estimated**

Auto-calculate Emissions? (Y/N): **No**

Emissions Factor:

Primary Control

Emissions Factor Units:

Equipment Description: **Miscellaneous Control Devices (Other)**

Year Installed (Primary): **1942**

Factor Controlled? (Y/N):

Secondary Control

Equipment Description: **No Control Method**

Emissions Factor

Year Installed (Secondary):

Operating Rate:

Control System Capture Efficiency:

Emissions Factor

Control Device Efficiency:

Operating Rate Units:

Overall Device Efficiency: **75.00**

Annual Adjustment Factor: **0.00**

Emissions [tons/yr]: **6.46**

Supporting Emissions Calculation Data:

Emissions based off of the difference between the amount of die lube used and the amount recovered.

7. Summary for all SCC IDs:

SCC ID	PART	SO2	NOx	CO	OC	VOC	Hg	Pb	As	Bz	Be	Ab	VC	PM10
3-09-999-99	6.46	0	0	0	0	0	0	0	0	0	0	0	0	0
Totals:	6.46	0	0	0	0	0	0	0	0	0	0	0	0	0



CAMPBELL OIL CO.
MASS. 833-8555, AK. 253-8392
NEW PHILA. 343-7031, WOOS. 262-4911

Facility Name: **Canton Drop Forge**
Facility ID: **15-76-00-0073**
Title: **X002 HAMMERS EF 96**

4/15/97 WE REPORTED
THE EMISSIONS FROM
THE HAMMERS FOR
1996
LBITH

Emissions Reporting Form: Emissions Unit Information

report ☐ Emissions statement ☐ Emissions inventory

3. OEPA ID(s):

SCC Information

5. Select an SCC ID and complete the table below:

SCC ID: **3-09-030-04**

User Description for SCC (optional):

SCC operating rate units: **Tons Processed**

SCC Annual Operating Rate [SCC Units]: **60,327.00000**

Ash [%]:

Maximum Hourly Operating Rate [SCC Units]: **10.080**

Sulfur [%]:

SCC Comments:

6. Emissions information:

SCC ID: **3-09-030-04** Pollutant ID: **Organic compounds**

Emissions Method Description: **Material balance using engineering knowledge of the process**

Overall Efficiency Method: **Not applicable**

Auto-calculate Emissions? (Y/N): **No**

Emissions Factor:

Primary Control

Emissions Factor Units:

Equipment Description: **No Control Method**

Year Installed (Primary):

Factor Controlled? (Y/N):

Secondary Control

Equipment Description: **No Control Method**

Emissions Factor

Year Installed (Secondary):

Operating Rate:

Control System Capture Efficiency:

Emissions Factor

Control Device Efficiency:

Operating Rate Units:

Overall Device Efficiency: **0.00**

Annual Adjustment Factor: **0.00**

Emissions [tons/yr]: **3.88**

Supporting Emissions Calculation Data:

Emissions calculated using mass balance, engineering judgements, and plant usage records.

cc: Rich &
2(b)

CANTON DROP FORGE, INC.
AUDIT ACTION PLAN

Project I - PCB Remediation

Phase A - Conduct soil tests to delineate scope of work required and file action plan with OEPA, if required.

Estimated initial OEPA filing by 10/1/93, if required

Phase B - Remediation activity and OEPA approval, if required, of final report

Project II - Remediation of Area Near Hole 8

Phase A - Delineate scope of work required, perform feasibility studies and file action plan with OEPA, if required.

Estimated initial OEPA filing by 3/1/94, if required

Phase B - Remediation activity, verification tests and OEPA approval, if required, of final report

Project III - New Pretreatment System and Lagoon Remediation

Phase A - Process water pretreatment system

Task I - Delineate scope of work required, develop system concept, design system and file request for permit to install

Estimated initial OEPA filing by 12/1/93

Task II- Construct system pursuant to permit to install

Phase B*- Remediation of lagoons 1 and 2

Task I - Remove and properly dispose of oil emulsions

Task II- Determine volume and character of affected materials, perform feasibility studies and file action plan with OEPA, if required

Estimated initial OEPA filing by 3/1/94, if required

Task III-Remediation activity, verification tests and OEPA approval of final report

*May be combined and integrated with Phase A as part of the process water pretreatment system and the permit to install.

3/31/93

3, 2(b), 1(c),
1(d)

Subject: Progress Report On Audit Action Plan
Project III-New Pre-treatment System and Lagoon
Remediation

Following is a progress report on Project III described in the March 31, 1993 Canton Drop Forge Audit Action Plan.

Phase A - Process water pre-treatment system

Task I - Delineate scope of work required, develop system concept, design system and file request for permit to install.

Current Status

Measurement of volumes of oil/water effluents.

Lagoon #1

- Source #1 Storm water only point is normally submerged. No flow has been estimated.
- Source #2 Abandon drain from upsetter pits. The writer has never observed a flow from this line.
- Source #3 Storm sewer and process water from the north end of the forge shop. This flow is highly variable due to the impact of rain and the condition of water retaining devises on the rotary hearth forge furnaces. Typical process water volume is estimated at 30 GPM.
- Outflow #4 This is the pump to transfer water from lagoon #1 to lagoon #2.
- Source #5 Storm sewer and process water from the center of the forge shop. This flow is highly variable due to the impact of rain and the condition of water retaining devises on the rotary hearth forge furnaces. Typical process water volume is estimated at 24 GPM.
- Source #6 Storm sewer and process water from the south end of the forge shop. This flow is some what variable due to the impact of rain and the amount of condensate from the high pressure steam line. Typical process water volume is estimated at 1.5 GPM.

Lagoon #2

- Source #7 Storm water and process water from lagoon #1 (Outflow #4); low pressure steam condensate from the steam/condensate separators at the north end of the forge shop, at the end of the anvil heater lines, prior to the hot process softener, and at the end of the heater line to the forge shop offices; blow down from the hot process softener; drain water from the scrubber; storm water from the east end of the shop; and blow down from the boilers.

The condensate from the low pressure steam lines is of concern due to the presents of oil. The total flow from the four sources is less than five GPM.
Source #8 Storm water from the office parking lot, storm water from the die shop roof, drain water from the cooling tank in the south end of the die shop.
Outflow #9 This is the pump to transfer water from lagoon #1 to lagoon #2.

Analyses to identify effluent constituents.

Lagoon #1

A composite sample from Sources #3, #5 and #6 was analyzed for the following.

- 7 METALS
- BOD, 5 DAY
- OIL/GREASE
- pH, LAB
- SPECIFIC GRAVITY
- RESIDUE, NONFILTERABLE (SUSPENDED)
- VISCOSITY (@ 100 C)
- 90 CHEMICALS
- 18 PESTICIDES
- 7 PCB'S

The oil/grease at 82 MG/L was the only significant result. This is close to the 100 MG/L limit for Massillon and too high for storm water.

Lagoon #2

A composite sample of low pressure steam condensate from the steam/condensate separators at the north end of the forge shop and at the end of the heater line to the forge shop offices was analyzed for the following.

- 7 METALS
- BOD, 5 DAY
- OIL/GREASE
- pH, LAB
- SPECIFIC GRAVITY
- RESIDUE, NONFILTERABLE (SUSPENDED)
- VISCOSITY (@ 100 C)
- 90 CHEMICALS
- 18 PESTICIDES
- 7 PCB'S

The significant results are as follows.

- BOD, 5 DAY
- was 612 MG/L, Massillon reg. 300 MG/L

CDF005021

OIL/GREASE

was 2500 MG/L, Massillon reg. 100 MG/L

RESIDUE, NONFILTERABLE (SUSPENDED)

was 1020 MG/L, Massillon reg. 300 MG/L

Quotations from producers or designers of pre-treatment equipment.

Hammontree & Associates, Limited

Preliminary design and report ----- \$17,400.00

Michalek & Associates, Inc.

Design for re-route of existing piping ----- \$3,345.00

Size oil separator for 100 gpm capacity ----- \$6,000.00

Highland Tank & Mfg.

Complete 100gpm (10ppm) separator ----- \$10,053.00

Hudson Industries

Complete 100gpm (15ppm) separator ----- \$17,140.00

Preliminary discussions with Massillon Industrial
Pre-treatment Division.

Massillon is considering our request to investigate the possible discharge of treated condensate and treated scrubber water. Massillon is currently facing a possible EPA fine for not meeting discharge limitations on mercury, cyanide, and solids. This possible fine is making it difficult for them to consider any new sources.

Phase B - Remediation of lagoons #1 and #2

Task I - Remove and properly dispose of oil/water emulsion.

Current Status

17,568 gallons of oil/water emulsion have been removed. A pump and skimmer is currently on site from Hudson Industries. This pump is sized to pump 100 GPM. As soon as the weather warms up a few degrees this system will be tested. If successful the system will be rented for a set cost per week and pumping will begin immediately.

⊗ B.M.

NC. BASE
CE POST
(OUND)

MW #1

70.00'

CENTERLINE OF WESTBOUND TRACK

737.46'

N 02° 13' 30" E

#1
LAGOON
WATER
EL. 1055.5

UNDERGROUND
STORAGE TANK
AREA

MW #3

U.S.T. AREA

FACTORY
BUILDING

MW #4

RECIR.
SYST.
(CIRCULATED)

TAN

" IRON
PE SET
(IND)

MW #2

30.00'

NAIL SET 550.00'

S 87° 30' 00" E

CDF005023

SOUTH

1100.00'

NOT FOUND

2(b), 1(c), 3

PROGRESS REPORT NO.3
CLEAN UP DESIGN / CLEAN UP ACTION

PERIOD: JULY 30, 1993 TO AUGUST 20, 1993

I. CLEAN UP DESIGN

A. ACTIVITIES PERFORMED THIS REPORTING PERIOD

1. Pre-Design Activities

- a) Access paths to lagoon #1 inlets have been installed.
- b) Initial water flow readings were gathered on 8-19-93.
- c) MSDS for Grafo LN-693, RITE-LUBE ES 13640, RITE-LUBE ES 13557, and CITGO Cylinder Oil 680-7 were sent to Larry Phillips on 8-17-93.
- d) Information on oil separation equipment has been received from Hudson Industries and from Pan American Environmental.

B. DATA PRODUCED THIS REPORTING PERIOD

- a) Initial flow readings for lagoon #1 inlets are as follows.

From south end of forge shop	1.5 GPM
From center of forge shop	24 GPM
From north end of forge shop	30 GPM

C. ACTIVITIES SCHEDULED FOR THE NEXT REPORTING PERIOD

- a) Larry Phillips will be consulted to design and install a weir on two inlets to lagoon #1.
- b) Larry Phillips will be advising us as to the appropriate analysis for the water flowing into lagoon #1.
- c) Water flows and temperatures will continue to be monitored.

II. CLEAN UP ACTION

A. ACTIVITIES PERFORMED THIS REPORTING PERIOD

- a) The 4,791 gallons of pond oil that was shipped on 7-29-93 had 33% oil. The cost was \$.16/GAL. plus \$300 for transportation.
- b) The first invoices, approved by Larry Phillips, have arrived. These invoices were labeled "ESCROW" and sent to Bill Price.
- c) Drums for the die lube recycling test are on site as of 8-20-93.

B. DATA PRODUCED THIS REPORTING PERIOD

- a) The initial oil removed from the above ground tank was 33% oil.
- b) Advance Sewer Systems can pump the oil from lagoon #1 into our 20,000 GAL above ground tank. The approximate cost is \$45/hour. In 8 hours approximately 4000 GAL of oil could be pumped. The total cost would be over \$10,000 to remove all the oil.
- c) Allen Pump could sell us an air-powered double diaphragm pump for about \$800, plus installation that could pump this material.

C. ACTIVITIES SCHEDULED FOR THE NEXT REPORTING PERIOD

- a) The used die lube will be transferred to 55 GAL drums during the week of 8-23-93.
- b) The used die lube will be shipped, using our truck by 9-1-93.
- c) A pump quotation is to arrive by 8-26-93.
- d) A load of pond oil will be scheduled during the week of 8-23-93.

Keith J. Houseknecht

cc: W.K. Cordier
J.P. Bressanelli
L.L. Stalnaker
F.H. Zollinger, Jr.

2(b), 1(c), 1(d)

PROGRESS REPORT NO.4
CLEAN UP DESIGN / CLEAN UP ACTION

PERIOD: AUGUST 20, 1993 TO OCTOBER 31, 1993

I. CLEAN UP DESIGN

A. ACTIVITIES PERFORMED THIS REPORTING PERIOD

1. Pre-Design Activities

a) A composite water sample was taken from three inlets to #1 lagoon on 9-29-93. Aqua Tech Environmental Laboratories Inc. analyzed the composite sample.

b) The composite sample was analyzed for the following, per Larry Phillips recommendation.

7 METALS

BOD, 5 DAY

OIL/GREASE

pH, LAB

SPECIFIC GRAVITY

RESIDUE, NONFILTERABLE (SUSPENDED)

VISCOSITY (@ 100 C)

90 CHEMICALS

18 PESTICIDES

7 PCB'S

Results were received at CDF on 10-21-93

c) Results were forwarded to Hudson Industries and discussed with ALAR engineering Corporation.

B. DATA PRODUCED THIS REPORTING PERIOD

a) Comments on the water analysis

7 METALS

4 below detection limits

lead was 4.3 UG/L, EPA action level for lead/copper rule is 15 UG/L

copper was 24 UG/L, EPA action level for lead copper rule is 1300 UG/L

zinc was 14 UG/L, not on the EPA list for public water supplies

BOD, 5 DAY

was 4 MG/L, Massillon reg. 300 MG/L

OIL/GREASE

was 82 MG/L, Massillon reg. 100 MG/L

pH, LAB

was 7.9, Massillon reg. 5.0 to 10.0

SPECIFIC GRAVITY

was 0.99, water is 1.0

RESIDUE, NONFILTERABLE (SUSPENDED)

was 26 MG/L, Massillon reg. 300 MG/L

VISCOSITY (@ 100 C)

was .76 centistokes no standard

90 CHEMICALS

all below detection limits

18 PESTICIDES

all below detection limits

7 PCB'S

all below detection limits

MG/L is the same as PPM (Parts Per Million)

UG/L is the same as PPB (Parts Per Billion)

C. ACTIVITIES SCHEDULED FOR THE NEXT REPORTING PERIOD

- a) Continue dialog with separator suppliers
- b) Attempt to measure condensate flow rate and quality from forge shop separator.

II. CLEAN UP ACTION

A. ACTIVITIES PERFORMED THIS REPORTING PERIOD

- a) To date 17,568 gallons of oil has been shipped to Research Oil.
- b) Six drums of used die lube are available for processing.

B. DATA PRODUCED THIS REPORTING PERIOD

- a) The pond oil is about 60% oil the rest is water and solids.
- b) Hudson Industries quoted a pump and skimmer package that can remove oil from #1 lagoon at a rate of 100 GPM. This package is available to rent for \$247.00/week. If the pumping rate is not achieved we do not pay.
- c) The flow rate from a SA2-A 2" Flap Valve SandPIPER air diaphragm pump was @ 2 GPM. 20', 2" hose, 4' rise, suction x 100', 2.5" hose, 17' rise, discharge. Improvements could be made by reducing the suction, using a ball type valve and increasing the air pressure.

C. ACTIVITIES SCHEDULED FOR THE NEXT REPORTING PERIOD

- a) More die lube will be collected and stored in 55 gallon drums. A quantity of 15 drums is required to see if this material can be recycled.
- b) We will continue efforts to pump the pond oil until the oil temperature prohibits further trials. The package from Hudson Industries is currently in the approval process.

Keith J. Houseknecht

cc: W.K. Cordier
J.P. Bressanelli
L.L. Stalnaker
F.H. Zollinger, Jr.

1(c), 1(d), 7

PROGRESS REPORT NO.5
CLEAN UP DESIGN / CLEAN UP ACTION

PERIOD: OCTOBER 31, 1993 TO NOVEMBER 30, 1993

I. CLEAN UP DESIGN

A. ACTIVITIES PERFORMED THIS REPORTING PERIOD

- a) Hammontree was asked to quote on the design and installation of the oil water separator.
- b) Highland Tank & Mfg. Co. was asked to quote on providing an oil water separator.

B. DATA PRODUCED THIS REPORTING PERIOD

Highland Tank & Mfg. Co. quoted a 100 GPM oil water separator for our application. This unit will assure that the water discharge will be below 10 ppm of oil and grease. The price is \$10,053.00 with manway extensions, installation materials, alarm panel, level sensor and freight.

C. ACTIVITIES SCHEDULED FOR THE NEXT REPORTING PERIOD

- a) Measure condensate flow rate and quality from forge shop separator. Hammontree has been asked to complete this work.
- b) Hammontree has been asked to determine the permissible limits for oil and grease levels in water flowing to our lagoons. This should be determined by December 31.
- c) The Massillon Sewer District will be contacted to determine the permissible contaminant limits and flows for new discharges.
- d) Prepare RFQ for purchase of the separator within 10 days after completion of the above activities.

II. CLEAN UP ACTION

A. ACTIVITIES PERFORMED THIS REPORTING PERIOD

- a) Hudson Industries acquired a sample of our pond oil to determine the temperature at which it will become impossible to pump.
- b) Seven drums of used die lube are available for processing.

B. DATA PRODUCED THIS REPORTING PERIOD

- a) None.

C. ACTIVITIES SCHEDULED FOR THE NEXT REPORTING PERIOD

- a) More die lube will be collected and stored.
A quantity of 15 drums is required to see if
this material can be recycled.
- b) We will continue efforts to pump the pond oil
until the oil temperature prohibits further
trials. The package from Hudson Industries
is on order and should be delivered by the
middle of December.

Keith J. Houseknecht

cc: W.K. Cordier
J.P. Bressanelli
L.L. Stalnaker
F.H. Zollinger, Jr.

2(b), 7

PROGRESS REPORT NO.6
CLEAN UP DESIGN / CLEAN UP ACTION

PERIOD: NOVEMBER 30, 1993 TO JANUARY 11, 1994

I. CLEAN UP DESIGN (oil separator)

A. ACTIVITIES PERFORMED THIS REPORTING PERIOD

- a) Hammontree sampled the condensate from our steam separator on 12/17/93.
- b) The flow of condensate in the storm sewer line between the power house and the saw department was estimated.

B. DATA PRODUCED THIS REPORTING PERIOD

- a) Comments on the water analysis
7 METALS

Cd, Cr, Hg, Ni below detection limits

lead was 7.0 UG/L, EPA action level for lead/copper rule is 15 UG/L

copper was 104 UG/L, EPA action level for lead copper rule is 1300 UG/L

zinc was 90 UG/L, not on the EPA list for public water supplies

BOD, 5 DAY

was 612 MG/L, Massillon reg. 300 MG/L

OIL/GREASE

was 2500 MG/L, Massillon reg. 100 MG/L

pH, LAB

was 8.6, Massillon reg. 5.0 to 10.0

SPECIFIC GRAVITY

was 0.94, water is 1.0

RESIDUE, NONFILTERABLE (SUSPENDED)

was 1020 MG/L, Massillon reg. 300 MG/L

VISCOSITY (@ 100 C)

was .1.92 centistokes no standard

90 CHEMICALS

No results

18 PESTICIDES

No results

7 PCB'S

No results

PROGRESS REPORT NO.7
CLEAN UP DESIGN / CLEAN UP ACTION

PERIOD: JANUARY 11, 1994 TO JANUARY 28, 1994

I. CLEAN UP DESIGN (oil separator)

A. ACTIVITIES PERFORMED THIS REPORTING PERIOD

- a) The Massillon Industrial Pretreatment Division was contacted to determine what the requirements are to get a new discharge approved.
- b) Information was gathered from Ron Kendrick as to the outlet points for oil laden condensate.
- c) The analysis of condensate for 107 chemicals was completed.
- d) Catalogs for steam control equipment were received.

B. DATA PRODUCED THIS REPORTING PERIOD

- a) Massillon Sewer is not meeting there discharge limits for mercury, cyanide, and solids. As a result they are in trouble with EPA and are not at all interested in any new sources. They are considering our request for discharge of oil laden condensate water and scrubber water after most of the solids have been removed.
- b) Low pressure steam condensate (hammer exhaust) is the source of oil that requires separation. This low pressure steam is used for heat in the area of the forge shop office, for heating water in the hot process softener, and is continuously drained from the steam/condensate separator at the north end of the forge shop.
- c) Comments on the water analysis
107 CHEMICALS
All 107 chemicals were below detection limits.
- d) The most efficient method to remove the oil from the condensate may be immediately following a steam trap at the points noted in B,b).

C. ACTIVITIES SCHEDULED FOR THE NEXT REPORTING PERIOD

- a) Specific equipment will be reviewed for the removal of condensate from our low pressure steam lines and for oil removal from condensate.
- b) Gather information on 5 day BOD reduction, and sources of BOD problems.

- c) Hammontree has been asked to determine the permissible limits for oil and grease levels in water flowing to our lagoons.
- d) A follow up with the Massillon Sewer District will be scheduled.
- e) Prepare RFQ for purchase of the separator within 10 days after completion of the above activities.

II. CLEAN UP ACTION (lagoon #1)

A. ACTIVITIES PERFORMED THIS REPORTING PERIOD

- a) The discharge pump for lagoon #1 failed causing the oil level to rise several feet. As a result the Hudson Industries pump and motor was found below the oil level. The motor is now out to be cleaned.
- b) Eight drums of used die lube are available for processing.

B. DATA PRODUCED THIS REPORTING PERIOD

- a) None.

C. ACTIVITIES SCHEDULED FOR THE NEXT REPORTING PERIOD

- a) More die lube will be collected and stored. A quantity of 15 drums is required to see if this material can be recycled.
- b) We will begin pumping the pond oil when the motor is back and the oil temperature increases a few degrees.

Keith J. Houseknecht

cc: W.K. Cordier
J.P. Bressanelli
L.L. Stalnaker
F.H. Zollinger, Jr.

REVISED DRAFT

2(b), 1(c)

Keith
9/27/93

Subject: Progress Report---Canton Drop Forge
Audit Action Plan

Following is a progress report on each of the three projects described in the March 31, 1993 Canton Drop Forge Audit Action Plan, a copy of which is attached.

Project I - PCB Remediation

The plan was to complete soil tests, specify scope, prepare a remediation action plan and file that plan (if required) with OEPA by October 1. Actual remediation activity was to occur after receiving OEPA approval of the plan (if required) at an unspecified time.

After detailed consultations with Hammontree & Associates, R&R International and Day, Ketterer, plus individual inquiries elsewhere, plans for PCB remediation have been abandoned. The final decision on that matter followed verification that regulations would permit us to use refill soil containing higher levels of PCB than the very low PCB levels in the "contaminated" soil we might remove.

It is our intention that no further action be taken with respect to Project I.

Project II - Remediation of Area Near Hole 8

No work has yet begun on this project because of the higher (time) priority for Projects I and III and limitations on present cash availability and technical personnel at CDF. Phase A of the project, i.e. to delineate scope of work, perform feasibility studies and file an action plan with OEPA (if required) will most likely be completed by June 1, 1994, three months beyond the original target date. Phase B remediation activity should then begin during the third quarter of 1994.

Project III - New Pre-treatment System and Lagoon Remediation

Phase A (Task I) was started in May, with most subsequent effort focused on three subtasks: I (a) measurement of volumes of oil/water effluents generated from plant operations; I (b) analyses to identify effluent constituents and I (c) selection of and quotations from producers or designers of pre-treatment equipment.

Subtask I (a), conducted almost entirely by CDF personnel (no cost to the escrow account for CDF personnel), proved to be more complicated and time consuming than expected, because of the multiplicity of discharge points and the highly variable (hour-to-hour and day-to-day) volumes emitted. Those measurements were completed last week.

CDF005034

Subtask I (b) was therefore delayed until truly representative samples were available for analyses. Samples will be submitted to the testing lab this week with feedback expected by October 18. Those analyses will be used by producers/designers in determining whether mechanical separation (alone) will be sufficient and to determine whether the output of the new system will be acceptable by the city of Massillon water treatment system.

Subtask I (c) began in July with initial screening of designers or producers of pretreatment systems. Effluent volume data will be sent to at least three of these firms next week and constituent analyses will be sent after October 18. They will be asked for preliminary concept proposals and quotations, to be received by December 15. Detailed site investigations and discussions with Massillon will take place between December 15 and February 1, followed by submission of final designs and quotations.

The target date for design completion and filing for permits has been revised to April 1, 1994.

Phase B (Task I) of this project involving remediation of two lagoons is progressing on schedule with removal from the site of 16,000 gallons of oil/water emulsions within the last three weeks. Regular removals of such emulsions from lagoon 1 are ongoing. Another 30,000 gallons should be collected and removed before cold weather intercedes. Collections will resume in the spring.

Phase B (Task II) is an integral part of Phase A, Task I. Since it is now evident that more CDF technical and administrative man-hours will be required than had been anticipated, the target date for completion of a remediation action plan for the lagoons and filing for approval has been revised to July 1, 1994. Most of the effort and costs incurred to date for Project III have been for time spent by CDF personnel.

cc: Keith
2(b), 1(c)

CANTON DROP FORGE, INC.
AUDIT ACTION PLAN

Project I - PCB Remediation

Phase A - Conduct soil tests to delineate scope of work required and file action plan with OEPA, if required.

Estimated initial OEPA filing by 10/1/93, if required

Phase B - Remediation activity and OEPA approval, if required, of final report

Project II - Remediation of Area Near Hole 8

Phase A - Delineate scope of work required, perform feasibility studies and file action plan with OEPA, if required.

Estimated initial OEPA filing by 3/1/94, if required

Phase B - Remediation activity, verification tests and OEPA approval, if required, of final report

Project III - New Pretreatment System and Lagoon Remediation

Phase A - Process water pretreatment system

Task I - Delineate scope of work required, develop system concept, design system and file request for permit to install

Estimated initial OEPA filing by 12/1/93

Task II- Construct system pursuant to permit to install

Phase B*- Remediation of lagoons 1 and 2

Task I - Remove and properly dispose of oil emulsions

Task II- Determine volume and character of affected materials, perform feasibility studies and file action plan with OEPA, if required

Estimated initial OEPA filing by 3/1/94, if required

Task III-Remediation activity, verification tests and OEPA approval of final report

*May be combined and integrated with Phase A as part of the process water pretreatment system and the permit to install.

3/31/93

3/30/94

CANTON DROP FORGE, AUDIT ACTION PLANMARCH 30, 1994 PROGRESS REPORT

2(b), 1(c), 7

Following is a progress report on each of the three projects described in the March 31, 1993 Canton Drop Forge Audit Action Plan.

Project I - PCB Remediation

NO CHANGE

The plan was to complete soil tests, specify scope, prepare a remediation action plan and file that plan (if required) with OEPA by October 1. Actual remediation activity was to occur after receiving OEPA approval of the plan (if required) at an unspecified time.

After detailed consultation with Hammontree & Associates, R&R International and Day, Ketterer, plus individual inquiries elsewhere, plans for PCB remediation have been abandoned. The final decision on that matter followed verification that regulations would permit us to use refill soil containing higher levels of PCB than the very low PCB levels in the "contaminated" soil we might remove.

It is our intention that no further action be taken with respect to Project I.

Project II - Remediation of Area Near Hole 8

NO CHANGE

Phase A of this project, i.e. to delineate scope of work, perform feasibility studies and file an action plan with OEPA (if required) will begin in May and most likely be completed by August 31. Limited availability of CDF technical personnel (not compensated from the escrow account) continues to affect progress on this phase, but should improve by May. Initiation of Phase B remediation activity should be possible sometime within the September-October period.

Project III - New Pretreatment and Lagoon Remediation

Phase A, Task I of this project for the design and permitting of a new process water pretreatment system, comprises three subtasks.

Subtask (1a), for determination and/or estimation of effluent flow rates proved to be much more complicated and time consuming than expected, but is now completed. This subtask was conducted mostly by CDF personnel (no charge to the escrow account) who were also deeply involved in the other two subtasks.

-2-

DATA ON STREAM EXHAUST
LOW RATES & DIL CONTAMINATION
S TO BE COLLECTED BY A
TASK TESTING COMPANY.

FLOYD BROWNE
ASSOCIATES, INC.
ARE PROCEEDING WITH
MEETINGS HAVE
BEEN HELD ON SITE.

Subtask (1b), for analyses and determination of constituents of effluents is also completed. At this time, the only problem constituents appear to be oil/grease and residues (suspended solids). All these data have been sent to and discussed with producers and designers of pretreatment systems.

AND FLOYD BROWNE

Subtask (1c) involves selection of producers and designers of the pretreatment system and obtaining their quotations. It has progressed as far as possible without reactions from the Massillon water department. Concepts have been developed and preliminary quotes have been received from three producers and one designer.

The Massillon water department has been fined for failure to meet state discharge regulations and their officials appear to be unwilling or unable to respond to our inquiries until they have their own discharges under control. Hence, Task I cannot be completed until we either receive the needed responses from Massillon or select the much more complicated alternative of discharging clean effluents into our existing lagoons.

FLOYD BROWNE
WILL CONTINUE
AT THE
APPROPRIATE
TIME.

It is therefore uncertain when Phase A will be completed. We will continue to press for a response from Massillon. Certainly the April 1 target date for completion is not now realistic.

REMOVED 98/600
ALIGN TO DATE

Phase B - Task I. This phase and task for removal and proper disposal of emulsions from the two lagoons was interrupted by cold weather after removal of over 30,000 gallons of emulsions from Lagoon One. A 100 gpm pump has been placed at the lagoon, ready to pump emulsions into a 20,000 gallon holding tank or directly into trucks, until this phase of remediation is complete. Pumping should begin by April 15, weather permitting.

PURCHASED
PUMP &
SKIMMER
7/11/94
WE WERE
RENTING TO
TRY IT OUT

Phase B - Task II was also impeded by the unusually cold weather and inability to obtain samples from the lagoon bottom. Completion of such removals and test results from samples should occur by July 30, provided we will be able to float a boat (to obtain bottom samples) before June 1.

SAMPLE
AFTER
MOST OF
OIL IS OF
THE SURFACE

In Phase B, as with other phases, the man-hours of needed involvement of CDF personnel have far exceeded our expectations.

TERRY - WHEN YOU
THROW A ROCK IN THE
POND YOU NOW SEE WATER

William K. Cordier, Jr.
William K. Cordier, Chairman

WKC:lab WE ARE GETTING
03/30/94 CLOSE.

CDF005039



2(5)

TO: J. P. Bressanelli

March 16, 1995

FROM: W. K. Cordier

SUBJECT: Quarterly and Semi-annual Audit Action Plan Reports

An internal quarterly report on progress against the Audit Action Plan is due by March 31. We are also obligated to submit a semi-annual report to the CEI Group on progress against the Plan before March 31.

Please refer to the attached Audit Action Plan report of September 30, 1994 as a guide and prepare a draft report for my review on March 22. If you should get it finished before March 22, go ahead and send a draft copy to Rick Zollinger.

WKC

WKC:mp

Enclosure

cc: WDPrice

FHZollinger

2(b), 1(c), 3 9/30/94

CANTON DROP FORGE, AUDIT ACTION PLAN

SEPTEMBER 30, 1994 PROGRESS REPORT

Following is a progress report on each of the three projects described in the March 31, 1993 Canton Drop Forge Audit Action Plan.

Project I -PCB Remediation

The plan was to complete soil tests, specify scope, prepare a remediation action plan and file that plan (if required) with OEPA. Actual remediation activity was to occur after receiving OEPA approval of the plan.

After detailed consultation with Hammontree & Associates, R&R International and Day, Ketterer, plus individual inquiries elsewhere, plans for PCB remediation were abandoned. That decision followed verification that regulations would permit use of refill soil containing higher levels of PCB than the very low PCB levels in the "contaminated" soil to be removed.

No further action contemplated on Project I.

Project II -Remediation of Area Near Hole 8

Commencement of this project has been rescheduled for March, 1995, so that CDF technical personnel can focus on the (now more complex than envisioned) work of Project III (see below). Phase A of this project, to delineate scope of work, perform feasibility studies and file an action plan with OEPA (if required), should be completed by June 30, 1995. Phase B remediation activity should then begin in August, 1995.

Project III -Pretreatment System/Lagoon Remediation

Phase A, Task 1 of this project, comprising three subtasks, is for delineation of scope, concept development, final design and permitting of a new process water pretreatment system.

Subtask (1a), for determining and/or estimating effluent flow rates proved to be even more complicated than was reported in March, when it appeared the subtask was completed. Sources of oil-containing water appear to be more numerous than those previously identified. Unless the system designers, Floyd Browne Associates, (see Subtask 1c) should discover still further sources as they complete their design work, this Subtask (a) is completed.

Project III -Pretreatment System/Lagoon Remediation (cont'd.)

Phase A, Task 1 (cont'd.)

Subtask (1b), for analyses and determination of constituents of effluents and surface emulsions from Lagoon 1 is also essentially completed (see Phase B, Task 1). The only problem constituents appear to be oil/grease and residues (suspended solids). Extraction and analyses of samples from the lagoon bottoms (see Phase B, Task 2) will begin as soon as the surface of Lagoon 1 is sufficiently free of surface emulsions to permit access to and proper removal of bottom samples.

Subtask (1c) is for selection of potential designers of (and equipment producers for) the pretreatment system, obtaining their quotations, selecting the preferred designer, agreeing on a final design and filing for a permit to install. Preliminary concepts and quotes were received from three designers and three equipment producers. Floyd Browne Associates was selected as the designer in May. During meetings with Floyd Browne in September, six alternative system concept designs were presented, including some which CDF believed to be more extensive (and expensive) than necessary. After completing revisions, the engineer and CDF selected one system concept for more refined cost estimates and if accepted by CDF, final detailed design (see Task 2 below). This subtask should be complete, to the point of filing for an installation permit, by year end.

The Massillon water department has not yet indicated willingness to receive "clean" discharge from CDF's ultimate pretreatment system, thereby increasing the likelihood of long term (clean) discharge into the lagoons.

Phase A - Task 2 is for construction and installation of the pretreatment system. Based on the September meetings, Floyd Browne is refining cost estimates and design details for the chosen system concept involving four individual separators to handle the three major contaminating sources and its seven different, widely separated discharge lines. Design details and costing for this system will be sufficient by late October to permit specification of equipment and final costing of components. Assuming that OEPA will require six weeks to review and issue a permit, construction should begin in February with installation complete by July 1995.

Project III -Pretreatment System/Lagoon Remediation (cont'd.)

Phase B - Task 1 for removal and proper disposal of emulsions from the two lagoons was interrupted by cold weather after removal of over 30,000 gallons from Lagoon 1, by CDF personnel (whose personnel costs are fully borne by CDF). Pumping was resumed via a 100 gpm pump located near Lagoon 1. A total of 113,000 gallons of oil/water mixtures have now been removed. Because those mixtures are becoming increasingly thinner (i.e., contain more water), the pump was modified and a water separator was employed (rented) in an attempt to "thicken" the emulsion removed to provide for efficient handling and affordable disposal. Because the separator was ineffective, the rate of pumping has been slowed and absorbent booms are in place to minimize the amount of water in the extracted emulsions. This task should be completed before November.

Phase B - Task 2, to determine volumes and character of affected materials in the lagoons was also impeded by cold weather and the resultant delay in extracting bottom samples. Three proposals for extracting and analyzing those samples (from Lagoon 1) were received. Hammontree & Associates was selected and will begin extracting bottom samples when the lagoon surface is sufficiently free of emulsions, probably by mid-October. Chemical analyses of Lagoon 1 samples should be available before year end. A decision regarding the need for confirming samples from Lagoon 2 will be made in January or February of 1995.

This task also includes filing a remediation plan with OEPA, if required. That filing should be possible by March 31, 1995.

Phase B - Task 3, for actual remediation of Lagoons 1 and 2 which should begin in April or May of 1995.

In Phase B especially, actual man-hours of needed involvement of CDF technical personnel have far exceeded earlier estimates.

William K. Cordier, Chairman

9/30/94

CDF005043

Summary of Report - CDF Audit Action Plan at September 30, 1994

2(b), 1(c)

<u>PROJECT</u>	<u>STATUS</u>	<u>PHASE (TASK-SUBTASK)</u>	<u>STATUS</u>
I. <u>PCB Remediation</u>	Apparently not needed		
II. <u>Remediation near Hole 8</u>	Rescheduled to permit focus of CDF personnel on Project III	A Scope, feasibility, file plan for OEPA approval	Start 3/1/95 Complete 6/30/95
		B Remediation	Start 8/1/95 Complete ?
III. <u>Pretreatment System and Lagoon Remediation</u>	Underway	A Pretreatment System	
		A (1a) Effluent flow rates	Completed
		A (1b) Analyze effluents and surface emulsions, (Lagoon 1)	Essentially completed
		A (1c) Quotes from potential system designers, selection, final design and costing, file for OEPA permit to install	Designer selected, preferred concept specified. Final design and costing due 12/31/95. File for permit then.
		A (2) Construct and install system	Start 2/15/95 Complete 6/30/95
		B Remediate Lagoons 1 and 2	
		B (1) Removal, disposal of emulsions	113,000 gal. removed from Lagoon 1. Completed by 11/1/94
		B (2) Determine volume, makeup of affected materials. Feasibility for remediation. File plan for OEPA approval.	Hammontree selected to extract, analyze bottom samples. Start 10/15/94, complete 2/1/95 (Lagoon 1), confirming samples from Lagoon 2? File plan with OEPA 3/31/95
		B (3) Remediation	Start 5/1/95 Complete ?

CANTON DROP FORGE, INC.

Miscellaneous Status Reports

1(c), 2(b)

Remediation

We have Floyd Browne Associates' final proposals for the process water pretreatment system, which Hammontree is critiquing at our request. Cost will be between \$200,000 and \$250,000. Soil samples from the bottom of Lagoons 1 and 2 show no contaminants other than petroleum hydrocarbons. Hammontree has proposals from three remediation specialists and will give us their proposal for lagoon remediation within the month. Pretreatment system installation and lagoon remediation actions will begin ASAP. We have protested to the Escrow Agent about repeated delays in invoice processing caused by CEI objections and believe the agent will correct that situation.

Huth Oil and Summit National Clean-ups

No new developments.

OEPA

After additional meetings with OEPA to resolve a number of issues, they decided CDF would not need a permit for forge shop emissions until Title V permits are required, probably next year. They approved the permit to install a rotary furnace for blade performing and they agreed that no permit is required for the new heat treat furnace. Our explanation that excessive oil in steam discharge was exaggerated by malfunction of a control valve was accepted. One outstanding issue, boiler operation and types of fuels permitted, has not been resolved.

China Project

Shanghai Turbine Works (STW) was pleased with the quality of CDF's third shipment. Final release on the initial order is at our outside machining source: those blades should be ready to ship to STW in March or early April. We have intentionally delayed quoting on another 800 blade forgings until manufacturing costs of the last group have been compiled. Harbin Turbine Works and Dongfang Turbine Works, the other two large steam turbine manufacturers in China, also want us to quote on large blades.

-2-

Capital ProjectsComputer-controlled Press/Manipulator

Much progress on installation of components and design/construction of the control system for the press and manipulator. Hardware design is complete with assembly of the control cabinet and console almost done. The AC portion of the system has been tested satisfactorily but the DC portion, delayed by the supplier, will arrive next week. Software planning is virtually finished and its design is 60 percent complete. The control room should arrive in late February. The press starter has arrived and the hydraulic tank and pump are in place. Initial start-up of the press, about two weeks behind schedule, should occur in mid-March.

Rebuild of 35-1 Hammer

Cracks observed while machining the anvil were extensive. One was more than a foot in depth and is believed to extend to the spongy shrink cavity of this massive casting. That crack was scarfed out and repaired with a soft overlay, the other cracks were welded and the anvil's top section was stress-relieved in place. Anvil grinding and machining will occur in the next several weeks. All other hammer components have been welded and machined or purchased and are ready to install. Final schedule for completion awaits repair of the anvil.

Continuous Heat Treat Furnace

A permit will not now be needed for this furnace. It is in place, undergoing repair of the refractory lining. New controls are being purchased.

The type of track and trays to be used through the furnace is under study, as they have significant cost and part handling implications.

Hydro-tel

A used hydro-tel has been purchased, installed and is in use, giving the die department needed additional capacity. It is virtually identical to CDF's largest hydro-tel but is in better condition. The actual project cost was within the \$20,000 estimate.

IMIS

The IMIS system continues to track jobs through the shop on-line to enhance monitoring of job status. Detailed variance cost reports have been developed which show performance by operation on each shop order. All heat treat procedures which have been developed to date are now in the system, with others being added when ready.

2-06-95

CDF005046

2(b)

PROJECT I -

NO CHANGE

PROJECT II -

COMMENCEMENT OF THIS PROJECT HAS

BEEN RESCHEDULED TO FOLLOW PROJECT III (SEE BELOW)

PHASE A OF THIS PROJECT, TO DETERMINE SCOPE OF

WORK, PERFORM FEASIBILITY STUDIES AND FILE AN

ACTION PLAN WITH CEPA (IF REQUIRED), WILL

BEGIN AFTER THE LAGOON REMEDIATION PHASE

OF PROJECT III IS UNDERWAY. THE PHASE B

REMEDIATION ACTIVITY SHOULD BEGIN

WITHIN 6 MONTHS AFTER THE START OF

PHASE A.

PROJECT III

PHASE A, TASK 1 - NO CHANGE

SUBTASK (1a), FOR DETERMINING AND/OR

ESTIMATING EFFLUENT FLOW RATES

IS COMPLETE.

SUBTASK (1b), FOR ANALYSIS AND DETERMINATION

OF CONSTITUENTS OF EFFLUENTS AND

SURFACE EMULSION? FROM LAGOON 1 IS

COMPLETE. ONLY A THIN LAYER OF THE

OIL/WATER EMULSION REMAINS ON THE

SURFACE OF LAGOON 1.

SUBTASK (1c), IS FOR THE INITIAL

DESIGN OF THE DETENTION TANK SYSTEM

AND FILING FOR A PERMIT TO

INSTALL. THE INITIAL DESIGN

OF THE PRETREATMENT SYSTEM
IS COMPLETE, INCLUDING COST
ESTIMATES FOR THE MATERIALS
AND INSTALLATION OF THE

THIS WORK WAS COMPLETED BY FBA ENVIRONMENTAL
COMPLETE SYSTEM, HAMMONTREE

AND ASSOCIATES HAS REVIEWED

TO REVIEW THE FBA ENVIRONMENTAL
REPORT FOR ACCURACY AND COMPLETENESS.

THIS REVIEW PROCESS IS COMPLETE.

THE INSTALLATION CONTRACTOR WILL
BE RESPONSIBLE FOR OBTAINING

THE REQUIRED PERMITS TO

INSTALL THE EQUIPMENT. HAMMONTREE

AND ASSOCIATES HAS COMPLETED

A BID DOCUMENT WHICH WILL
INSURE THAT ALL CONTRACTORS
WILL BE QUOTING UNIFORMLY.

THIS DOCUMENT WILL BE REVIEWED
AND SENT TO ^{FOUR} SUPPLIERS INCLUDING

HARRISON AND ASSOCIATES AND
THEir SUBMITTALS BY MARCH 31.

THE SYSTEM DESIGN CALLS FOR
RETAINING ALL EXISTING LABORS
FOR CONTROL OF PROCESS WATER AND STEAM
WATER.

PHASE A - TASK 2 IS FOR CONSTRUCTION
AND INSTALLATION OF THE PRETREATMENT
SYSTEM. THIS WILL RELY DIRECTLY

FOLLOWING THE ACCEPTANCE OF
ONE OF THE BIDS OBTAINED UNDER
PROJECT III, PHASE A, TASK 1, SUBTASK 1C
A MAY 15TH START DATE SHOULD
BE ACCEPTED, ALLOWING 3 WEEKS
FOR BIDDING AND 3 WEEKS FOR
MOBILIZATION.

PHASE B - TASK 1 (FOR REMOVAL OF
PROPER DISPOSAL OF EMULSION)

FROM THE TWO LAGOONS IS

NEARLY COMPLETE. LESS THAN ONE

INCH OF MATERIAL REMAINS IN

LAGOON 1. THIS WILL BE ADDRESSED

WITHIN THE NEXT 4 WEEKS.

6
PHASE B TASK 2, TO DETERMINE VOLUME
AND CHARACTER OF AFFECTED MATERIALS
IN LAGOONS 1 AND 2 IS COMPLETE.

HAMMONTREE AND ASSOCIATES REMOVED
SAMPLES, DETERMINED THE CONTOUR OF
THE BOTTOM LAYERS OF SLUDGE,
MEASURED THE DEPTH OF SLUDGE,
AND SENT SAMPLES OF THE SLUDGE TO
ONE LABORATORY AND THREE BIO REMEDIATION
FIRMS. LABORATORY RESULTS WERE
SENT TO THREE BIO REMEDIATION
FIRMS AND TWO LAND FILLS FOR
DISPOSAL ESTIMATES. A REPORT ON
THE BOTTOM MATERIAL IN LAGOON #1
"LAGOON #1 SLUDGE DISPOSAL/TREATMENT
OPTIONS" IS NOW BEING REVIEWED

By CDF PERSONNEL. A SIMILAR
REPORT ON LAGOON^{#2} IS FORTH COMING

BASED ON ^{THE LAGOON 1} A REPORT TWO BIO REMEDIATION

COMPANIES HAVE BEEN INTERVIEWED AND

INVITED TO PREPARE PRECISE QUOTES

& PLANS FOR REVIEW.

PHASE B - TASK 3 FOR THE REMEDIATION

OF LAGOONS^{#1 & #2} WILL BEGIN DIRECTLY

AFTER PHASE A - TASK 2 IS UNDERWAY

JERRY
THIS
IS
CORRECT

→ PER REQUEST OF THE PREVIOUS OWNERS,



Jerry

Per Phone con with Larry Phillips

Estimated Times - Pretreatment

30 days for contractors to respond

30 days after bids are open and
contractor selected we would
sign contract.

10 days after contract is signed
contractor will begin work

9 months to complete work
" " because equipment lead
time could be long.

actual on site work may be
only 60 days.

EPA Permit - ask Rick

City " - No

Elkhart " - Maybe

Lagoon #2 Report due Thurs
3/30

CDF005054

J. CURTISS & ASSOCIATES
524 Parkway View Drive
Pittsburgh, PA 15205
Phone: 412/788-1550
Fax: 412/788-1555

2(b)

SUMMARY OF REPORT - CDF AUDIT ACTION PLAN AT MARCH 31, 1995

<u>PROJECT</u>	<u>PHASE (TASK-SUBTASK)</u>	<u>STATUS</u>
I. <u>PCB Remediation</u>		Apparently not needed. Complete.
II. <u>Remediation near Hole 8</u>	A. Scope, feasibility, file plan for OEPA approval	Rescheduled to permit focus of CDF personnel on Project III Will begin after Proj. III is underway. Estimated start 8/95 Complete 11/95
	B. Remediation	Estimated start 4/96. Complete ?
III. <u>Pretreatment System and Lagoon Remediation</u>	A. Pretreatment System	
	A(1a) Effluent flow rates	Completed
	A(1b) Analyze effluents and surface emulsions	Completed
	A(1c) Final system design, quotes from builders, file for OEPA permit to install 30 days to respond	Design complete Bid specification developed. RFQ's sent. Builder to be selected by 5/95. Permits filed by 6/95.
	A(2) Construct and install system	Start 7/95 and complete by 1/96, assuming no permit delay
	B. Remediate Lagoons 1 & 2	
	B(1) Removal, disposal of emulsions	Only thin layer of emulsion remains. Will complete after separa- tion system operational - 4/96
	B(2) Determine volume, makeup of affected materials. Feasibility for remediation. File plan with OEPA for approval	Characterization of material completed, estimates of volume completed. Review of remediation alternative underway, to be complete by 9/95. File plan with OEPA by 11/95.

*Now - Notice of Award
10 DAYS AFTER NOTICE
TO PROCEED
CONTRACT*

*CONSTRUCTION
10 DAYS AFTER NOTICE
TO PROCEED
NO PERMIT?
ASK RICK EPA
NO CITY PERMIT*

*START TO COMPLETE
6-9 MONTHS
60 DAYS CONSTRUCTION*

*LAGOON 2 REPORT
THURSDAY*

NO

SUMMARY OF REPORT - CDF AUDIT ACTION PLAN AT MARCH 31, 1995

<u>PROJECT</u>	<u>PHASE (TASK-SUBTASK)</u>	<u>STATUS</u>
III. <u>Pretreatment System</u> <u>and Lagoon Remediation</u> (continued)	B(3) Remediation	Remediation can not begin until oil separation system functional, remnant emulsion removed, Lagoon 1 drained, and pretreated water diverted to Lagoon 2. Start 5/96. Complete?

2(b)

KSH
3/31/95

CANTON DROP FORGE, AUDIT ACTION PLAN

MARCH 31, 1995 PROGRESS REPORT

Following is a progress report on each of the three projects described in the March 31, 1993 Canton Drop Forge Audit Action Plan.

Project I - PCB Remediation

The plan was to complete soil tests, specify scope, prepare a remediation action plan and file that plan (if required) with OEPA. Actual remediation activity was to occur after receiving OEPA approval of the plan.

After detailed consultation with Hammontree & Associates, R&R International and Day, Ketterer, plus individual inquiries elsewhere, plans for PCB remediation were abandoned. That decision followed verification that regulations would permit use of refill soil containing higher levels of PCB than the very low PCB levels in the "contaminated" soil to be removed.

No further action contemplated on Project I.

Project II - Remediation of Area Near Hole 8

There has been no further action on this project, because CDF technical personnel and the external consultants have had to concentrate all of their attention on the (more complex than envisioned) work of Project III (see below).

Project III - Pretreatment System/Lagoon Remediation

Phase A - Task 1 of this project comprising three subtasks, is for delineation of scope, concept development, final design and permitting of a new process water pretreatment system.

Subtask (1a) for determining and/or estimating effluent flow rates is completed.

Subtask (1b) for analyses and determination of constituents of effluents and surface emulsions from lagoon 1 is also completed (see Phase B, Task 1). The only problem constituents found were oil/grease and residues (suspended solids).

Subtask (1c), is for selection of potential designers of (and equipment producers for) the pretreatment system, obtaining their quotations, selecting the preferred designer, agreeing on a final design and filing for permits to install, if required.

Phase B - Task 2 to determine volume and character of affected materials in the lagoons is now complete.

Phase B - Task 3 for remediation of lagoons 1 and 2. Last year a contract for \$222,500 was awarded to Critter Company, the lower of two bidders, for bioremediation of an assumed 9,000 cubic yards of sludge and oil contaminated soil from the two lagoons. Lagoon 1 was emptied of oil, water and contaminated soil and residual material in the cavity is being bioremediated in situ. Contaminated soil was transported and is being treated in a bio-cell located on CDF property. Critter's contract guarantees that the treated soil will contain 300 PPM maximum hydrocarbons, a threshold limit used by fire marshalls in assessing contamination from underground fuel-bearing storage tanks. The process, to take up to 18 months, is highly temperature dependent, virtually stopping during the winter. The process will resume when warmer weather permits.

While lagoon 1 is being remediated, lagoon 2 is being used as a receptacle for process water discharge.

JPB:mp

3, 2(b) 6

CANTON DROP FORGE, INC.
Miscellaneous Status Reports

Remediation (Audit Action Plan)

The yard separator system is operational and continues to be used to treat effluent from the plant proper prior to discharge into lagoon 2. Operational problems relating to the high viscosity and tackiness of the oil and grease continue to be experienced, but are being dealt with by the contractor (Workman) and CDF personnel.

A plan for a step-by-step study of a boiler house separator system has been developed and is being implemented. The prototype system includes modification of the current steam:water/oil separator unit in the exhaust steam line to improve efficiency, installation of a separator tank to remove non-emulsified oil from the water:oil effluent and characterization (volume and concentration) of the discharge emulsified oil:water effluent from the separator tank so that an appropriately designed final process unit, such as a coalescent filter, can be installed.

Bioremediation of material from lagoon 1 continues to be delayed by Critter's contract default and associated legal suits. Negotiations are underway to try to resolve this matter outside the court system. Simultaneously, alternate methods of dealing with the hydrocarbon contaminated soil have been and continued to be explored including:

- == 5 for ALTERNATIVES
- (1) bioremediation on site by a firm other than Critter,
 - (2) using the contaminated soil as a base for asphalt produced by either hot or cold methods,
 - (3) trucking the soil to an outside source for bioremediation,
 - (4) partial-bioremediation of the soil and then using it for backfill of lagoon 1 after the lagoon has been lined with a plastic and/or clay layer to prevent leaching of hydrocarbons to surrounding soil or water and
 - (5) trucking the soil to an outside approved land-fill.

At this point, bioremediation on site by Critter appears to be the lowest-cost, least-risk approach, but the alternatives are strongly being considered.

OEPA

The consulting firm hired to model SO₂ emissions for various CDF operating levels and combinations of emitting sources has completed their initial work and has provided a report of their study during the past week. The report is being reviewed in order to respond to a past OEPA study that indicated that emissions from CDF can exceed maximum permissible limits under the worst-case scenario used by OEPA in their modeling.

Miscellaneous Status Reports

(continued)

Meanwhile, without our knowledge, OEPA has evidently continued modeling CDF's SO₂ emissions, apparently as part of some modeling of emissions from a nearby source (Ashland Oil). A very recent report OEPA prepared regarding Ashland's model contain references to CDF's emissions exceeding permissible limits even under less than the worst-case scenario. Our legal consultants are planning a response.

China Project

The last release of blades for Shanghai Turbine Works are ready for shipment. We are awaiting a letter of credit and expect it to permit shipment in July.

Capital Projects

Computer-controlled Press/Manipulator

The preforming press continues to run well. However, with GE's low volume and our attempts to operate the forge shop with minimum personnel, some difficulty continues to be experienced in manning it without reducing hammer capacity on an intermittent basis. As experience in producing acceptable preforms on the press continues to grow, as is constantly happening, the manning problem decreases.

Rebuild of 35-1 Hammer

Completion of the 35-1 rebuild has been delayed initially by late delivery of the cylinder and ram from our machining source and now from a problem of match-up of the anvil with the top sub-base. After assembly, a gap of up to 0.100 inches was found to exist at the anvil:sub-base interface even though both surfaces had previously been machined to ensure flatness and full contact over the entire bearing surfaces. Even though the flatness of both surfaces were reportedly checked ~~for flatness~~ after machining, reinspection after disassembly indicates a flatness problem with both surfaces which is now being corrected. We now expect the hammer to be available for service by August 12 or 19, depending on the time required for remachining.

Continuous Heat Treat Furnace

A temperature uniformity survey is now being run on the new heat treat furnace prior to its release for production.

REVISED DRAFT

Subject: Progress Report---Canton Drop Forge
Audit Action Plan

Following is a progress report on each of the three projects described in the March 31, 1993 Canton Drop Forge Audit Action Plan, a copy of which is attached.

Project I - PCB Remediation

The plan was to complete soil tests, specify scope, prepare a remediation action plan and file that plan (if required) with OEPA by October 1. Actual remediation activity was to occur after receiving OEPA approval of the plan (if required) at an unspecified time.

After detailed consultations with Hammontree & Associates, R&R International and Day, Ketterer, plus individual inquiries elsewhere, plans for PCB remediation have been abandoned. The final decision on that matter followed discovery that regulations would permit us to use refill soil containing higher levels of PCB than the very low PCB levels in the "contaminated" soil we might remove.

The majority of costs incurred for this project have been for time spent by CDF technical and managerial people: these costs will be borne 100 percent by CDF. The lesser costs incurred and invoiced by Hammontree, R&R International and Day, Ketterer, estimated at \$_____ to date, are included in invoices already submitted to and paid by the escrow agent. There should be no significant additional costs for this project.

Project II - Remediation of Area Near Hole 8

No work has yet begun on this project because of the higher (time) priority for Projects I and III and limitations on present cash availability and technical personnel at CDF. Phase A of the project, i.e. to delineate scope of work, perform feasibility studies and file an action plan with OEPA (if required) will most likely be completed by June 1, 1994, three months beyond the original target date. Phase B remediation activity should then begin during the third quarter of 1994.

Project III - New Pre-treatment System and Lagoon Remediation

Phase A (Task I) was started in May, with most subsequent effort focused on four tasks: (a) measurement of volumes of oil/water effluents generated from plant operations; (b) analyses to identify effluent constituents; (c) selection of and quotations from alternative sources for pre-treatment equipment and (d) removal/disposal of certain oil/water emulsions from the property.

Task I (a), conducted almost entirely by CDF personnel (no cost to the escrow account for CDF personnel), proved to be more complicated and time consuming than expected, because of the multiplicity of discharge points and the highly variable (hour-to-hour and day-to-day) volumes emitted. Those measurements were completed last week.

Task I (b) was therefore delayed until truly representative samples were available for analyses. Samples will be submitted to the testing lab this week with feedback expected by October 18. Those analyses will then be sent to at least three producers or designers of pretreatment equipment which, along with the effluent volume information which is being sent this week, will tell them whether or not mechanical separation alone will be sufficient. Those analyses are also needed to determine whether the effluents from CDF's eventual pretreatment system will be accepted by the Massillon City Water Treatment System.

The target date for system design completion and filing for permits has been revised to March 1, 1994.

Phase B (Task I) of this project involving remediation of two lagoons is progressing on schedule with removal from the site of ____ gallons of oil/water emulsions within the last three weeks and the commencement of regular removals of such emulsions from lagoon 1 scheduled for ____.

The second task (Task II) in Phase B, culminating in filing of lagoon remediation action plans with OEPA (if necessary) by March 1, 1994, has been rescheduled for June 1, 1994. It is now evident that more CDF technical and administrative man-hours will be required than had been originally anticipated. Most of the effort and costs incurred to date for Project III have been for time spent by CDF personnel.

Invoices received to date from Hammontree, R&R and Day, Ketterer for Project III have totaled \$____, all of which have been submitted to and paid by the escrow agent.

Cost Summary

In addition to the costs to be absorbed by CDF, \$4,137 has been invoiced and paid by the escrow agent. \$1,332 were for time provided by Hammontree engineers and an R&R senior environmental geologist. The remaining \$2,805 is for escrow agent fees.

WKC:mp
9/23/93



TELECOPIER COVER SHEET

2(b)

CANTON DROP FORGE

PLEASE DELIVER THE FOLLOWING PAGES TO:

NAME: BOB LEHMAN

FIRM: _____

CITY: _____

PHONE: () FAX: ()FROM - NAME: KETH HOUSEKNECHTFIRM: CANTON DROP FORGECITY: CANTON, OHIOTOTAL NUMBER OF PAGES 5 INCLUDING COVER SHEET.

WE ARE TRANSMITTING ON THE FOLLOWING:

DATE: 4/30TIME: 3:10

IF YOU DO NOT RECEIVE ALL PAGES - PLEASE CALL BACK AS SOON AS POSSIBLE.

TELEPHONE: (330) 477-4511, EXT. 180

=====

1 PAGE INITIAL INITIAL3 PAGES FOLLOW UP 418.1

CDF005063

LAB ANALYSIS SUMMARY

M I S C E L L A N E O U S	Sample #	W-1	1	4	5	6	Regulatory Limit
	Parameter						
	Reactive Cyanide (ppm)	<0.5	<0.5	<0.5	<0.5	<0.5	
	Reactive Sulfur (ppm)	<25	<25	<25	<25	<25	
	Flash Point (°F)	97	>140	>140	>140	>140	
	pH	6.63	7.31	7.12	7.46	7.67	
	Free Liquid (%)	0	0	0	0	0	
	TPH (418.1) (ppm)	1510	1543	25,557	81,426	105,290	100
	DRO (8015) (ppm)	38	35	216	54	94	
	PCB's (ppm)	<2	<2	<2	<2	<2	
T C L P B N A	Cresols (ppm)	0.10	<0.02	0.13	<0.02	0.07	200
	1, 4-Dichlorobenzene	<0.02	<0.02	<0.02	<0.02	0.03	7.5
	2, 4-Dinitrotoluene	<0.02	<0.02	<0.02	0.04	<0.02	0.13
	Hexachlorobenzene	<0.02	<0.02	<0.02	0.05	0.02	0.13
	Hexachloro-1, 3-butadiene	<0.015	0.50	<0.02	0.02	0.08	0.5
	Nitrobenzene	<0.02	<0.02	<0.02	<0.02	0.38	2
	Pentachlorophenol	0.07	0.07	<0.05	<0.05	0.10	100
	Pyridine	<0.05	<0.05	<0.05	<0.05	<0.05	5
	2, 4, 5 Trichlorophenol	<0.05	<0.05	<0.05	<0.05	<0.05	400
	2, 4, 6 Trichlorophenol	<0.05	<0.05	<0.05	<0.05	<0.05	2
T C L P V O L A T I L E S	Hexachloroethane	<0.02	<0.02	0.03	<0.02	0.05	3
	Benzene	<0.05	<0.05	<0.05	<0.05	<0.05	0.5
	Carbon Tetrachloride	<0.05	<0.05	<0.05	<0.05	<0.05	0.5
	Chlorobenzene	<0.05	<0.05	<0.05	<0.05	<0.05	100
	Chloroform	<0.05	<0.05	<0.05	<0.05	<0.05	6
	1, 2-Dichloroethane	<0.05	<0.05	<0.05	<0.05	<0.05	0.5
	1, 1-Dichloroethane	<0.05	<0.05	<0.05	<0.05	<0.05	0.7
	2-Butanone (MEK)	<5	<5	<5	<5	<5	200
	Tetrachloroethene	<0.05	<0.05	<0.05	<0.05	<0.05	0.7
	Trichloroethene	<0.05	<0.05	<0.05	<0.05	<0.05	0.5
	Vinyl Chloride	<0.05	<0.05	<0.05	<0.05	<0.05	0.2
T C L P M E T A L S	Silver	<0.01	<0.01	<0.01	<0.01	<0.01	5
	Lead	<0.1	<0.1	<0.1	<0.1	1.0	5
	Cadmium	<0.005	<0.005	<0.005	<0.005	<0.005	1
	Chromium	<0.05	<0.05	<0.05	<0.05	<0.05	5
	Arsenic	<0.001	0.003	0.008	<0.01	<0.001	5
	Mercury	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	0.2
	Barium	1.5	<0.1	<0.1	23	15	100
	Selenium	0.0005	0.03	<0.002	<0.002	<0.002	1

Sunnit Environmental Technologies, Inc.



your connection to a cleaner environment

July 24, 1995

Mr. Gene G. Hill, E.I.T., M.S.

Hammontree & Associates, LTD
5233 Stoncham Rd.
N. Canton, Ohio 44720

Date Received: 7/19/1995
Date Collected: 7/19/1995
Project #: Critter Co.
Client ID #: See Below
Laboratory ID #: See Below
Matrix: Soil
Analysis: TPH418.1
Date of Analysis: 7/20/1995, 7/21/1995
Detection Limit: 10 mg/kg

<u>Lab ID #</u>	<u>Client ID #</u>	<u>Results (mg/kg)</u>
95709-01	CDF1	98685
95709-02	CDF2	101137
95709-03	CDF3	187872

Laboratory Manager: Bassam Youssef

Environmental Technologies, Inc.
dedication to a cleaner environment



Offices in: Akron, OH; Ft. Wayne, IN; Nashville, TN; New Haven, CT

August 2, 1995

Mr. Gene C. Hill, E.I.T., M.S.
Hammontree & Associates, LTD
5233 Stoneham Rd.
N. Canton, Ohio 44720

Date Received: 7/25/1995
Date Collected: 7/25/1995
Project #: N/A
Client ID #: See Below
Laboratory ID #: See Below
Matrix: Soil
Analysis: TPH418.1
Date of Analysis: 7/26, 8/1/1995

<u>Parameter</u>	<u>Lab ID #</u>	<u>Client ID #</u>	<u>Detection</u>	<u>Results</u> (mg/kg)	<u>% Solids</u>
			<u>Limit</u> (mg/kg)		
TPH418.1	CDF-3	95743-01	500	84663	88.00
*TPH418.1	CDF-4	95743-02	500	132473	75.00

What level is req'd for 25% reduct?
25 % reduction = 25 (120,586) =
30,147 mg/kg
or levels of
90,439 mg/kg

* This sample is a moderate to highly aromatic oil.

Laboratory Manager: Bassam Youssef

CDF005066

Summit Environmental Technologies, Inc.
your connection to a cleaner environment



Offices in: Akron, OH; Ft. Wayne, IN; Nashville, TN; New Haven, CT

October 5, 1995

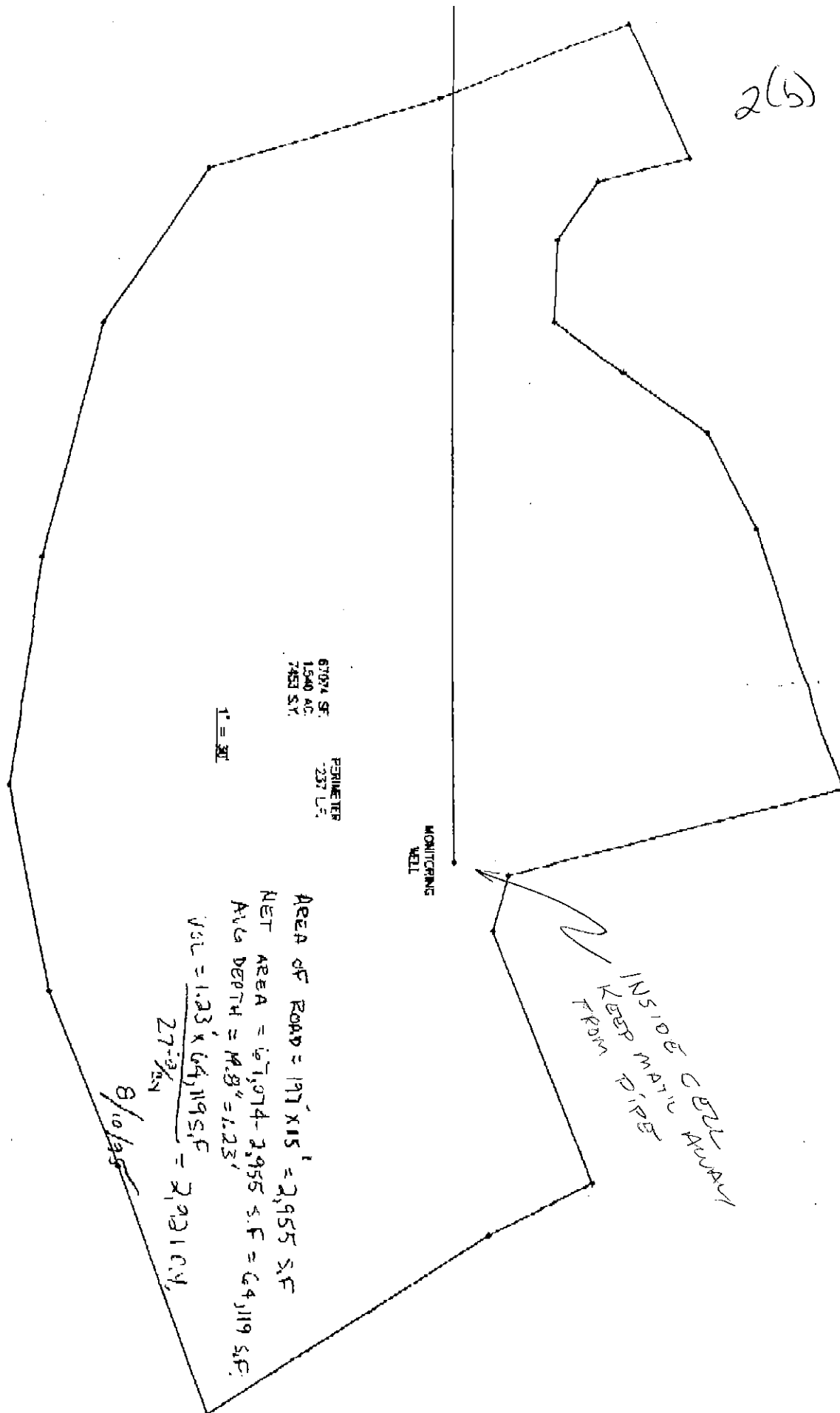
Mr. Gene G. Hill, E.I.T., M.S.
Hammontree & Associates, LTD
5233 Stonaham Rd.
N. Canton, Ohio 44720

Date Received : 10/2/95
Date Collected: 9/29/95
Project #: CDF Lagoon #1
Matrix: Soil
Method: 418.1
Detection Limit: 10 mg/kg
Date Analyzed: 10/4/95

<u>Lab ID #</u>	<u>Client ID #</u>	<u>TPH418.1</u> <u>(mg/kg)</u>	<u>% Solids</u>
951000-01	BioCell-SW (Dry)	60880	88
951000-02	BioCell-South (Clay Like)	98659	88
951000-03	BioCell-East (Clay Like)	83645	85
951000-04	BioCell-NE Clay	107022	88
951000-05	BioCell-West (Dry)	39375	94

Laboratory Manager: Bassam Youssef

CDF005067



2(b), 7, 1(c)

To Bill Cordier
ON 3/29/94

PROJECT I - PCB REMEDIATION

NO CHANGE

PROJECT II - REMEDIATION OF AREA NEAR HOLE 8

NO ACTION ON THIS PROJECT

THE JUNE 1, 1994 DATE WILL NOT BE MET

PROJECT III - NEW PRE-TREATMENT SYSTEM & LAGOON REMEDIATION
PHASE A (TASK 1)

a. EFFLUENT FLOW RATES HAVE BEEN ESTIMATED

b. ANALYSES TO IDENTIFY EFFLUENT CONSTITUENTS
HAVE BEEN COMPLETED.

2 COMPOSITE SAMPLES FROM A TOTAL
OF 5 SOURCES.

TESTED FOR

7 METALS

5 DAY BOD, OIL & GRASS, PH

SPECIFIC GRAVITY, RESIDUE &

VISCOSITY,

90 CHEMICALS

18 PESTICIDES

7 PCB'S

CDF005069

5 DAY BOD, OIL & GRASS & RESIDUE (SUSPENDED
SOLIDS) ARE THE PROBLEM CONSTITUENTS

SEWER
MASSILLON HAS BEEN UNABLE TO RESPOND

TO OUR REQUEST FOR COMMENTS ON THIS

SOURCE TO DATE. THEY ARE CURRENTLY INVOLVED

WITH A LARGE EPA FINE FOR NOT

2
MEETING STATE DISCHARGE LIMITS.
THEY MAY NOT BE WILLING TO TALK
ABOUT NEW SOURCES UNTIL THEY ARE
IN CONTROL OF THEIR DISCHARGE.

THE PRIMARY SOURCE OF OIL IS THE
OIL CONTAMINATED CONDENSATE FROM
THE FUEL STOP. OIL IS MIXED WITH
THE STEAM IN THE HAMMER TO REDUCE
THE WEAR BETWEEN THE CYLINDER WALL
AND THE PISTON HEAD.

CONTROL OF THIS CONDENSATE AND
REMOVAL OF OIL PRIOR TO DILUTION
IS IMPORTANT TO THE SUCCESS OF
THIS PROJECT.

C. PRICES HAVE BEEN RECEIVED FROM 3
SEPARATION SUPPLIERS

REQUEST FOR SYSTEM DESIGN IS
OUT TO 3 ENGINEERING FIRMS. HAMMON-
TAGE HAS RESPONDED WITH A QUOTE
FOR \$29,250.00

PHASE B (TASK I)

CDF005070

A 100 GPM PUMP HAS BEEN PLACED
AT LAGOON #1. THIS PUMP WILL BE USED
TO PUMP OIL FROM THE POND DIRECTLY
TO TANK TRUCKS. OR TO THE 20000

5
GALLON ABOVE GROUND TANK. PUMPING
SHOULD START WITHIN 2 WEEKS.

PHASE B (TASK II)

THIS ACTIVITY WILL BEGIN AFTER
PHASE B TASK I IS WELL UNDERWAY.

IT WILL BE NECESSARY TO WORK FROM
THE POND SURFACE TO PROPERLY
SAMPLE THE BOTTOM OF LAGOON #1.

2(b)

CANTON DROP FORGE, INC.
AUDIT ACTION PLAN

Project I - PCB Remediation

Phase A - Conduct soil tests to delineate scope of work required and file action plan with OEPA, if required.

Estimated initial OEPA filing by 10/1/93, if required

Phase B - Remediation activity and OEPA approval, if required, of final report

Project II - Remediation of Area Near Hole 8

Phase A - Delineate scope of work required, perform feasibility studies and file action plan with OEPA, if required.

Estimated initial OEPA filing by 3/1/94, if required

Phase B - Remediation activity, verification tests and OEPA approval, if required, of final report

Project III - New Pretreatment System and Lagoon Remediation

Phase A - Process water pretreatment system

Task I - Delineate scope of work required, develop system concept, design system and file request for permit to install

Estimated initial OEPA filing by 12/1/93

Task II- Construct system pursuant to permit to install

Phase B*- Remediation of lagoons 1 and 2

Task I - Remove and properly dispose of oil emulsions

Task II- Determine volume and character of affected materials, perform feasibility studies and file action plan with OEPA, if required

Estimated initial OEPA filing by 3/1/94, if required

Task III-Remediation activity, verification tests and OEPA approval of final report

*May be combined and integrated with Phase A as part of the process water pretreatment system and the permit to install.

3/31/93



CANTON DROP FORGE

William K. Cordier
Chairman

September 27, 1993

Mr. John L. Hobey
President
The Olofsson Corporation
P.O. Box 27308
Lansing, MI 48909

Subject: Progress Report - CDF Audit Action Plan

I am sending you this letter and its attachments in your capacity as CEI Group Agent. Paragraph 2 (b) of the May 3, 1993 Escrow and Indemnification Agreement specifies that CDF shall furnish you in September and March of each year, with a written progress report relating to the remediation recommended by the Phase II audit and installation of the new process water pre-treatment system. Attached is our September 27, 1993 progress report, along with a copy of the original Canton Drop Forge Audit Action Plan.

There have been no filings with the OEPA to date.

Best regards,

WKC:mp
Enclosures
cc: JPBressanelli
JJO'Sullivan
RHZollinger

CDF005074

CANTON DROP FORGE, INC. AUDIT ACTION PLAN

SEPTEMBER 27, 1993 PROGRESS REPORT

Following is a progress report on each of the three projects described in the March 31, 1993 Canton Drop Forge Audit Action Plan, a copy of which is attached.

Project I - PCB Remediation

The plan was to complete soil tests, specify scope, prepare a remediation action plan and file that plan (if required) with OEPA by October 1. Actual remediation activity was to occur after receiving OEPA approval of the plan (if required) at an unspecified time.

After detailed consultations with Hammontree & Associates, R&R International and Day, Ketterer, plus individual inquiries elsewhere, plans for PCB remediation have been abandoned. The final decision on that matter followed verification that regulations would permit us to use refill soil containing higher levels of PCB than the very low PCB levels in the "contaminated" soil we might remove.

It is our intention that no further action be taken with respect to Project I.

Project II - Remediation of Area Near Hole 8

No work has yet begun on this project because of the higher (time) priority for Projects I and III and limitations on present cash availability and technical personnel at CDF. Phase A of the project, i.e. to delineate scope of work, perform feasibility studies and file an action plan with OEPA (if required) will most likely be completed by June 1, 1994, three months beyond the original target date. Phase B remediation activity should then begin during the third quarter of 1994.

Project III - New Pre-treatment System and Lagoon Remediation

Phase A (Task I) was started in May, with most subsequent effort focused on three subtasks: I (a) measurement of volumes of oil/water effluents generated from plant operations; I (b) analyses to identify effluent constituents and I (c) selection of and quotations from producers or designers of pre-treatment equipment.

Subtask I (a), conducted almost entirely by CDF personnel (no cost to the escrow account for CDF personnel), proved to be more complicated and time consuming than expected, because of the multiplicity of discharge points and the highly variable (hour-to-hour and day-to-day) volumes emitted. Those measurements were completed last week.

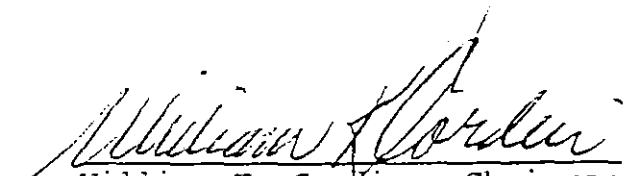
Subtask I (b) was therefore delayed until truly representative samples were available for analyses. Samples will be submitted to the testing lab this week with feedback expected by October 18. Those analyses will be used by producers/designers in determining whether mechanical separation (alone) will be sufficient and to determine whether the output of the new system will be acceptable by the city of Massillon water treatment system.

Subtask I (c) began in July with initial screening of designers or producers of pretreatment systems. Effluent volume data will be sent to at least three of these firms next week and constituent analyses will be sent after October 18. They will be asked for preliminary concept proposals and quotations, to be received by December 15. Detailed site investigations and discussions with Massillon will take place between December 15 and February 1, followed by submission of final designs and quotations.

The target date for design completion and filing for permits has been revised to April 1, 1994.

Phase B (Task I) of this project involving remediation of two lagoons is progressing on schedule with removal from the site of 16,000 gallons of oil/water emulsions within the last three weeks. Regular removals of such emulsions from lagoon 1 are ongoing. Another 30,000 gallons should be collected and removed before cold weather intercedes. Collections will resume in the spring.

Phase B (Task II) is an integral part of Phase A, Task I. Since it is now evident that more CDF technical and administrative man-hours will be required than had been anticipated, the target date for completion of a remediation action plan for the lagoons and filing for approval has been revised to July 1, 1994. Most of the effort and costs incurred to date for Project III have been for time spent by CDF personnel.


William K. Cordier, Chairman

7, 1(c), 2(b)

PROGRESS REPORT NO.7
CLEAN UP DESIGN / CLEAN UP ACTION

PERIOD: JANUARY 11, 1994 TO JANUARY 28, 1994

I. CLEAN UP DESIGN (oil separator)

A. ACTIVITIES PERFORMED THIS REPORTING PERIOD

- a) The Massillon Industrial Pretreatment Division was contacted to determine what the requirements are to get a new discharge approved.
- b) Information was gathered from Ron Kendrick as to the outlet points for oil laden condensate.
- c) The analysis of condensate for 107 chemicals was completed.
- d) Catalogs for steam control equipment were received.

B. DATA PRODUCED THIS REPORTING PERIOD

- a) Massillon Sewer is not meeting there discharge limits for mercury, cyanide, and solids. As a result they are in trouble with EPA and are not at all interested in any new sources. They are considering our request for discharge of oil laden condensate water and scrubber water after most of the solids have been removed.
- b) Low pressure steam condensate (hammer exhaust) is the source of oil that requires separation. This low pressure steam is used for heat in the area of the forge shop office, for heating water in the hot process softener, and is continuously drained from the steam/condensate separator at the north end of the forge shop.
- c) Comments on the water analysis
107 CHEMICALS
All 107 chemicals were below detection limits.
- d) The most efficient method to remove the oil from the condensate may be immediately following a steam trap at the points noted in B,b).

C. ACTIVITIES SCHEDULED FOR THE NEXT REPORTING PERIOD

- a) Specific equipment will be reviewed for the removal of condensate from our low pressure steam lines and for oil removal from condensate.
- b) Gather information on 5 day BOD reduction, and sources of BOD problems.

- c) Hammontree has been asked to determine the permissible limits for oil and grease levels in water flowing to our lagoons.
- d) A follow up with the Massillon Sewer District will be scheduled.
- e) Prepare RFQ for purchase of the separator within 10 days after completion of the above activities.

II. CLEAN UP ACTION (lagoon #1)

A. ACTIVITIES PERFORMED THIS REPORTING PERIOD

- a) The discharge pump for lagoon #1 failed causing the oil level to rise several feet. As a result the Hudson Industries pump and motor was found below the oil level. The motor is now out to be cleaned.
- b) Eight drums of used die lube are available for processing.

B. DATA PRODUCED THIS REPORTING PERIOD

- a) None.

C. ACTIVITIES SCHEDULED FOR THE NEXT REPORTING PERIOD

- a) More die lube will be collected and stored. A quantity of 15 drums is required to see if this material can be recycled.
- b) We will begin pumping the pond oil when the motor is back and the oil temperature increases a few degrees.

Keith J. Houseknecht

cc: W.K. Cordier
J.P. Bressanelli
L.L. Stalnaker
F.H. Zollinger, Jr.

REVISÉD DRAFT

2(b), 3

Keith

Subject: Progress Report---Canton Drop Forge
Audit Action Plan

Following is a progress report on each of the three projects described in the March 31, 1993 Canton Drop Forge Audit Action Plan, a copy of which is attached.

Project I - PCB Remediation

The plan was to complete soil tests, specify scope, prepare a remediation action plan and file that plan (if required) with OEPA by October 1. Actual remediation activity was to occur after receiving OEPA approval of the plan (if required) at an unspecified time.

After detailed consultations with Hammontree & Associates, R&R International and Day, Ketterer, plus individual inquiries elsewhere, plans for PCB remediation have been abandoned. The final decision on that matter followed verification that regulations would permit us to use refill soil containing higher levels of PCB than the very low PCB levels in the "contaminated" soil we might remove.

It is our intention that no further action be taken with respect to Project I.

Project II - Remediation of Area Near Hole 8

No work has yet begun on this project because of the higher (time) priority for Projects I and III and limitations on present cash availability and technical personnel at CDF. Phase A of the project, i.e. to delineate scope of work, perform feasibility studies and file an action plan with OEPA (if required) will most likely be completed by June 1, 1994, three months beyond the original target date. Phase B remediation activity should then begin during the third quarter of 1994.

Project III - New Pre-treatment System and Lagoon Remediation

Phase A (Task I) was started in May, with most subsequent effort focused on three subtasks: I (a) measurement of volumes of oil/water effluents generated from plant operations; I (b) analyses to identify effluent constituents and I (c) selection of and quotations from producers or designers of pre-treatment equipment.

Subtask I (a), conducted almost entirely by CDF personnel (no cost to the escrow account for CDF personnel), proved to be more complicated and time consuming than expected, because of the multiplicity of discharge points and the highly variable (hour-to-hour and day-to-day) volumes emitted. Those measurements were completed last week.

Subtask I (b) was therefore delayed until truly representative samples were available for analyses. Samples will be submitted to the testing lab this week with feedback expected by October 18. Those analyses will be used by producers/designers in determining whether mechanical separation (alone) will be sufficient and to determine whether the output of the new system will be acceptable by the city of Massillon water treatment system.

Subtask I (c) began in July with initial screening of designers or producers of pretreatment systems. Effluent volume data will be sent to at least three of these firms next week and constituent analyses will be sent after October 18. They will be asked for preliminary concept proposals and quotations, to be received by December 15. Detailed site investigations and discussions with Massillon will take place between December 15 and February 1, followed by submission of final designs and quotations.

The target date for design completion and filing for permits has been revised to April 1, 1994.

Phase B (Task I) of this project involving remediation of two lagoons is progressing on schedule with removal from the site of 16,000 gallons of oil/water emulsions within the last three weeks. Regular removals of such emulsions from lagoon 1 are ongoing. Another 30,000 gallons should be collected and removed before cold weather intercedes. Collections will resume in the spring.

Phase B (Task II) is an integral part of Phase A, Task I. Since it is now evident that more CDF technical and administrative man-hours will be required than had been anticipated, the target date for completion of a remediation action plan for the lagoons and filing for approval has been revised to July 1, 1994. Most of the effort and costs incurred to date for Project III have been for time spent by CDF personnel.



1234 S. CLEVELAND ROAD
P.O. BOX 4383
AKRON, OHIO 44321
TEL. (216) 866-2200
FAX (216) 866-7874

2(6)

July 13, 1993

Mr. Bill Cordier
Canton Drop Forge & Manufacturing Company
4575 Southway Street S.W.
Canton, Ohio 44706

Reference: PCBs in Soil
Canton Drop Forge Facility
Canton, Ohio
R&R Project No. 002546

Post-It™ brand fax transmittal memo 7871		# of pages = 4
To: Keith Houseknecht	From: Larry Phillips	
Co. CDF	Co. HAMMONTREE	
Dept.	Phone # 499-8817	
Fax # 477-2046	Fax # 499-0149	

Dear Mr. Cordier:

Subsequent to a June 6, 1993, meeting with Keith Houseknecht of Canton Drop Forge and Larry Phillips of Hammontree & Associates, R&R International, Incorporated, submits this letter of recommendation concerning the environmental concern at the above referenced site. The PCBs detected adjacent to the transformer located near the site powerhouse were documented in the Preliminary Soil and Groundwater Assessment submitted by R&R on March 24, 1993.

The concentrations of PCBs detected in the soil samples obtained from HB-1 (0.88 mg/Kg, power house transformer) and MW-6 (0.31 mg/Kg) are well below the normal level of concern for PCBs which normally is approximately 50 mg/Kg. The shallow soil sample obtained from HB-1 was collected from what was expected to be the most susceptible location for impact from a transformer release. According to Canton Drop Forge personnel, no leaks or spills are known to have occurred at the site. The concentrations detected are interpreted to represent incidental leakage. Based on this information, no reporting should be required under the TSCA regulations. The reported PCB concentrations do not exceed any established regulatory limit and in R&R's opinion do not pose a significant environmental or health risk.

PHASE II

NO REPORTING REQUIRED

The conclusions made in this letter are based only on the detected concentrations of constituents reported in the Preliminary Soil and Groundwater Assessment. The limited scope of that investigation does not preclude the possibility that higher concentrations of the identified compounds may exist elsewhere at the site. In the event that higher concentrations were to be identified, R&R's opinion regarding the site could change.

Environmental & Remediation Services - Drilling Services - Geotechnical Engineering - Material Testing - Computer Services

COLUMBIA, MD
(301) 992-5200

COLUMBUS, OH
(614) 237-5700

PITTSBURGH, PA
(412) 787-2700

CDF005081



Mr. Bill Cordier
Canton Drop Forge & Manufacturing Company
July 13, 1993
Page 2

We have appreciated the opportunity to serve your environmental needs on this project and invite you to contact our office if we can be of further assistance. Thank you for your time and attention.

Respectfully,

R&R International, Inc.

A handwritten signature in dark ink, appearing to read "Karl W. Valck", written in a cursive style.

Karl W. Valck
Project Manager

A handwritten signature in dark ink, appearing to read "Jeffery A. Sussman", written in a cursive style.

Jeffery A. Sussman
Manager, Environmental Services

KWV/JAS:kwv



1234 S. CLEVE-MASS ROAD
P.O. BOX 4383
AKRON, OHIO 44321
TEL. (216) 888-2200
FAX (216) 888-7874

2(b)

July 13, 1993

Mr. Bill Cordier
Canton Drop Forge & Manufacturing Company
4575 Southway Street S.W.
Canton, Ohio 44706

Reference: Contaminants in MW-8 Area
Canton Drop Forge Facility
Canton, Ohio
R&R Project No. 002546

Dear Mr. Cordier:

Subsequent to a June 6, 1993, meeting with Keith Houseknecht of Canton Drop Forge and Larry Phillips of Hammontree & Associates, R&R International, Incorporated, submits this letter of recommendation concerning the environmental concern at the above referenced site. The contaminants detected in the area of monitoring well MW-8 were documented in the Preliminary Soil and Groundwater Assessment submitted by R&R on March 24, 1993.

The main contaminants of concern in the area of MW-8 were the reported concentrations of barium in groundwater samples from the local perched groundwater table (1.9 and 3.4 ug/L) and the total petroleum hydrocarbons (TPH) detected in the soil and groundwater samples (6800 mg/Kg and 34 mg/L, respectively) as well as lesser concentrations of various volatile organic compounds (VOCs). The soil sample from MW-8 had a reported concentration of 1,1,1-trichloroethane (18 ug/Kg) and the groundwater sample from MW-8 had a reported concentration of chloromethane (21 ug/L).

Although the concentrations of barium detected in the groundwater at MW-8 exceed the USEPA's acceptable limit for safe drinking water (1.0 ug/L) for this compound, the local perched groundwater table does not represent a drinking water source. In addition, barium was not detected in the water sample obtained from Lagoon #3 which is in communication with the groundwater table present in MW-8. No USEPA drinking water standard exists for chloromethane. In R&R's opinion, the barium concentration, as well as the VOC concentrations, detected in MW-8 does not pose a significant environmental or health risk.

No regulatory limits have been established for total petroleum hydrocarbons (TPH) except for disposal purposes by the Ohio EPA. In the case of petroleum contaminated soils (PCS), specific levels are set to characterize waste soil as being regulated or not for disposal purposes. The TPH concentrations reported for the groundwater in MW-8 and the soil samples from MW-8 and other borings at the site are not relevant with regard to this

Environmental & Remediation Services - Drilling Services - Geotechnical Engineering - Material Testing - Computer Services

COLUMBIA, MD
(301) 992-5200

COLUMBUS, OH
(614) 237-5700

PITTSBURGH, PA
(412) 787-2700

CDF005083

B2



Mr. Bill Cordler
Canton Drop Forge & Manufacturing Company
July 13, 1993
Page 2

OR POSSIBLY
NOR IS IT NECESSARY TO REEVALUATE

regulation if no excavation or disposal activities are planned. In R&R's opinion, the detected concentrations of TPH at the site do not pose a significant environmental or health risk.

PHASE II

The conclusions made in this letter are based only on the detected concentrations of constituents reported in the Preliminary Soil and Groundwater Assessment. The limited scope of that investigation does not preclude the possibility that higher concentrations of the identified compounds may exist elsewhere at the site. In the event that higher concentrations were to be identified, R&R's opinion regarding the site could change.

We have appreciated the opportunity to serve your environmental needs on this project and invite you to contact our office if we can be of further assistance. Thank you for your time and attention.

Respectfully,

R&R International, Inc.

A handwritten signature in dark ink, appearing to read "Karl W. Valck".

Karl W. Valck
Project Manager

A handwritten signature in dark ink, appearing to read "Jeffery A. Sussman".

Jeffery A. Sussman
Manager, Environmental Services

KWV/JAS:kwv

26, 3

PROGRESS REPORT NO.3
CLEAN UP DESIGN / CLEAN UP ACTION

PERIOD: JULY 30, 1993 TO AUGUST 20, 1993

I. CLEAN UP DESIGN

A. ACTIVITIES PERFORMED THIS REPORTING PERIOD

1. Pre-Design Activities

- a) Access paths to lagoon #1 inlets have been installed.
- b) Initial water flow readings were gathered on 8-19-93.
- c) MSDS for Grafo LN-693, RITE-LUBE ES 13640, RITE-LUBE ES 13557, and CITGO Cylinder Oil 680-7 were sent to Larry Phillips on 8-17-93.
- d) Information on oil separation equipment has been received from Hudson Industries and from Pan American Environmental.

B. DATA PRODUCED THIS REPORTING PERIOD

- a) Initial flow readings for lagoon #1 inlets are as follows.

From south end of forge shop	1.5 GPM
From center of forge shop	24 GPM
From north end of forge shop	30 GPM

C. ACTIVITIES SCHEDULED FOR THE NEXT REPORTING PERIOD

- a) Larry Phillips will be consulted to design and install a weir on two inlets to lagoon #1.
- b) Larry Phillips will be advising us as to the appropriate analysis for the water flowing into lagoon #1.
- c) Water flows and temperatures will continue to be monitored.

II. CLEAN UP ACTION

A. ACTIVITIES PERFORMED THIS REPORTING PERIOD

- a) The 4,791 gallons of pond oil that was shipped on 7-29-93 had 33% oil. The cost was \$.16/GAL. plus \$300 for transportation.
- b) The first invoices, approved by Larry Phillips, have arrived. These invoices were labeled "ESCROW" and sent to Bill Price.
- c) Drums for the die lube recycling test are on site as of 8-20-93.

B. DATA PRODUCED THIS REPORTING PERIOD

- a) The initial oil removed from the above ground tank was 33% oil.
- b) Advance Sewer Systems can pump the oil from lagoon #1 into our 20,000 GAL above ground tank. The approximate cost is \$45/hour. In 8 hours approximately 4000 GAL of oil could be pumped. The total cost would be over \$10,000 to remove all the oil.
- c) Allen Pump could sell us an air-powered double diaphragm pump for about \$800, plus installation that could pump this material.

C. ACTIVITIES SCHEDULED FOR THE NEXT REPORTING PERIOD

- a) The used die lube will be transferred to 55 GAL drums during the week of 8-23-93.
- b) The used die lube will be shipped, using our truck by 9-1-93.
- c) A pump quotation is to arrive by 8-26-93.
- d) A load of pond oil will be scheduled during the week of 8-23-93.

Keith J. Houseknecht

cc: W.K. Cordier
J.P. Bressanelli
L.L. Stalnaker
F.H. Zollinger, Jr.

2(b), 1(c)

PROGRESS REPORT NO.6
CLEAN UP DESIGN / CLEAN UP ACTION

PERIOD: NOVEMBER 30, 1993 TO JANUARY 11, 1994

I. CLEAN UP DESIGN (oil separator)

A. ACTIVITIES PERFORMED THIS REPORTING PERIOD

- a) Hammontree sampled the condensate from our steam separator on 12/17/93.
- b) The flow of condensate in the storm sewer line between the power house and the saw department was estimated.

B. DATA PRODUCED THIS REPORTING PERIOD

a) Comments on the water analysis

7 METALS

Cd, Cr, Hg, Ni below detection limits

lead was 7.0 UG/L, EPA action level for lead/copper rule is 15 UG/L

copper was 104 UG/L, EPA action level for lead copper rule is 1300 UG/L

zinc was 90 UG/L, not on the EPA list for public water supplies

BOD, 5 DAY

was 612 MG/L, Massillon reg. 300 MG/L

OIL/GREASE

was 2500 MG/L, Massillon reg. 100 MG/L

pH, LAB

was 8.6, Massillon reg. 5.0 to 10.0

SPECIFIC GRAVITY

was 0.94, water is 1.0

RESIDUE, NONFILTERABLE (SUSPENDED)

was 1020 MG/L, Massillon reg. 300 MG/L

VISCOSITY (@ 100 C)

was .1.92 centistokes no standard

90 CHEMICALS

No results

18 PESTICIDES

No results

7 PCB'S

No results

Massillon would not take this condensate as described by this sample. The 5 day BOD, oil & grease, and the nonfilterable residue (suspended solids) are all to high.

- b) The flow of condensate in the storm sewer line between the power house and the saw department was between 1 and 2 gallons per minute. This flow comes from the main steam separator and the space heater lines in the north west corner of our property.

C. ACTIVITIES SCHEDULED FOR THE NEXT REPORTING PERIOD

- a) Call on the TTO portion of the last water sample if it is not delivered by 1/19/94.
- b) Gather information on 5 day BOD reduction, and sources of BOD problems.
- c) Hammontree has been asked to determine the permissible limits for oil and grease levels in water flowing to our lagoons.
- d) The Massillon Sewer District will be contacted to determine the permissible contaminant limits and flows for new discharges.
- e) Prepare RFQ for purchase of the separator within 10 days after completion of the above activities.

II. CLEAN UP ACTION (lagoon #1)

A. ACTIVITIES PERFORMED THIS REPORTING PERIOD

- a) Hudson Industries delivered the pump, skimmer and suction hose for trial. The trial will be conducted when the oil temperature increases a few degrees.
- b) Eight drums of used die lube are available for processing.

B. DATA PRODUCED THIS REPORTING PERIOD

- a) None.

C. ACTIVITIES SCHEDULED FOR THE NEXT REPORTING PERIOD

- a) More die lube will be collected and stored. A quantity of 15 drums is required to see if this material can be recycled.
- b) We will begin pumping the pond oil when the oil temperature increases a few degrees.

Keith J. Houseknecht

cc: W.K. Cordier
J.P. Bressanelli
L.L. Stalnaker
F.H. Zollinger, Jr.

CDF005088

2(b), 7

PROGRESS REPORT NO.5
CLEAN UP DESIGN / CLEAN UP ACTION

PERIOD: OCTOBER 31, 1993 TO NOVEMBER 30, 1993

I. CLEAN UP DESIGN

A. ACTIVITIES PERFORMED THIS REPORTING PERIOD

- a) Hammontree was asked to quote on the design and installation of the oil water separator.
- b) Highland Tank & Mfg. Co. was asked to quote on providing an oil water separator.

B. DATA PRODUCED THIS REPORTING PERIOD

Highland Tank & Mfg. Co. quoted a 100 GPM oil water separator for our application. This unit will assure that the water discharge will be below 10 ppm of oil and grease. The price is \$10,053.00 with manway extensions, installation materials, alarm panel, level sensor and freight.

C. ACTIVITIES SCHEDULED FOR THE NEXT REPORTING PERIOD

- a) Measure condensate flow rate and quality from forge shop separator. Hammontree has been asked to complete this work.
- b) Hammontree has been asked to determine the permissible limits for oil and grease levels in water flowing to our lagoons. This should be determined by December 31.
- c) The Massillon Sewer District will be contacted to determine the permissible contaminant limits and flows for new discharges.
- d) Prepare RFQ for purchase of the separator within 10 days after completion of the above activities.

II. CLEAN UP ACTION

A. ACTIVITIES PERFORMED THIS REPORTING PERIOD

- a) Hudson Industries acquired a sample of our pond oil to determine the temperature at which it will become impossible to pump.
- b) Seven drums of used die lube are available for processing.

B. DATA PRODUCED THIS REPORTING PERIOD

- a) None.

C. ACTIVITIES SCHEDULED FOR THE NEXT REPORTING PERIOD

- a) More die lube will be collected and stored.
A quantity of 15 drums is required to see if
this material can be recycled.
- b) We will continue efforts to pump the pond oil
until the oil temperature prohibits further
trials. The package from Hudson Industries
is on order and should be delivered by the
middle of December.

Keith J. Houseknecht

cc: W.K. Cordier
J.P. Bressanelli
L.L. Stalnaker
F.H. Zollinger, Jr.

R. JAMES HAMMONTREE, P.E., P.S.
BRUCE M. BAIR, P.E., P.S.
LAWRENCE D. PHILLIPS, P.E., P.S.
RONALD P. DOHY, P.S.
GARY L. TOUSSANT, P.S.
JOSE E. TOLEDO, P.E., P.S.
RICHARD R. COOK, P.E., P.S.
CHARLES F. HAMMONTREE, P.E., P.S.
JAMES C. BOLLIBON, P.E., P.S.

HAMMONTREE & ASSOCIATES, LIMITED

Consulting Engineers - Planners - Surveyors

TREEMORE BUILDING
5233 STONEHAM ROAD
NORTH CANTON, OHIO 44720

PHONE (216) 499-8817
FAX (216) 499-0149
TOLL FREE 1-800-394-8817

MICHAEL L. DECKER, P.S.
RICHARD J. FAULHABER, P.E., P.S.
KEITH A. BENNETT, P.E.
GREGORY E. MENCER, A.P.A.
DANIEL J. GRINSTEAD, P.E.
JEFFREY L. SPRAY, P.S.
PAUL A. TOMIC, P.S.
MARK E. FRANZEN, P.E.
KARL J. OPPRISCH, P.E.
BARBARA H. BENNETT, P.E.

1(c), 1(d),
1(e), 3

RECEIVED

February 7, 1995

FEB 8 1995

CANTON DROP FORGE

Canton Drop Forge
4575 Southway Street
P.O. Box 6902
Canton, Ohio 44706-0902

Attention: Keith Houseknecht

Dear Mr. Houseknecht:

Hammontree & Associates, Limited has reviewed the Oil/Water Separation Design Report (October 1994) which was submitted to Canton Drop Forge by FBA Environmental. The general design and layout of the proposed system appears to be sound and workable yet there are a few items which should be clarified or addressed.

The following is a list of comments which Hammontree & Associates has developed during the review process:

1. Canton Drop Forge may wish to maintain the ability to discharge the "yard" O/W separator back into Pond one (1). Small piping changes would make this option possible.
2. There is no apparent reason to double pump from Pond one (1) to Pond two (2). The sump pump in the press room can easily be by-passed. We understand this sump may already be by passed. There should be a separate force main from the separator at the south end of the Forge Shop to the storm sewers draining into Lagoon #2. Have you considered discharging by gravity into Lagoon #1? We expect Lagoon #1 to continue to receive storm water discharges.
3. Should the drain in the oil house be connected to the 6" PVC pipe which ties into the "yard" O/W separator?

Mr. Keith Houseknecht
February 7, 1995
Page 2

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FEB 8 1995
FORGE

4. Has testing been done to verify the suitability of the proposed units to treat the effluent? Either perform pilot testing or treatability studies for properties of the effluent to determine O/W separator applicability. There was no manufacturer's data supplied. Chemical and physical properties of the effluent may effect separator efficiency.
5. What are the O&M costs associated with the proposed units? Expected useful life?
6. Can the units be modified for other effluents?
7. The Oil/Water separator north of the saw department is in front of a door to building "C". Is there sufficient room for installation?
8. The report should correct pond identification numbers.
9. Is 120 gpm sufficient to handle peak flows from the Forge Shop building "C"? Sizing was not discussed for the north end of the Forge Shop.
10. Will there be separate slop oil storage tanks? What sizes are expected?
11. Does the sump in the basement of the boiler house receive any oil?
12. The oils condensate drain from the hot process softener should be treated prior to discharge to Pond #2 (Plate #1) (Okay on Plate #4).
13. The steam separator at the north end of the Forge Shop should be attached either to the building or stand alone. The stand by "Anvil" will be removed to another location.
14. Do the three lines to Pond one (1) on Plate four (4) represent the "Die Lube", "Steam Line" and "Surface Drainage" discharging to the south and west of the Forge Shop?

Respectfully,

HAMMONTREE & ASSOCIATES, LIMITED

Gene G. Hill

Gene G. Hill, E.I.T., M.S.

R. JAMES HAMMONTREE, P.E., P.S.
BRUCE M. BAIR, P.E., P.S.
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PHONE (216) 499-8817
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BARBARA H. BENNETT, P.E.

1(c), 1(d),
1(e), 3

RECEIVED

February 7, 1995

FEB 8 1995

CANTON DROP FORGE

Canton Drop Forge
4575 Southway Street
P.O. Box 6902
Canton, Ohio 44706-0902

Attention: Keith Houseknecht

Dear Mr. Houseknecht:

Hammontree & Associates, Limited has reviewed the Oil/Water Separation Design Report (October 1994) which was submitted to Canton Drop Forge by FBA Environmental. The general design and layout of the proposed system appears to be sound and workable yet there are a few items which should be clarified or addressed.

The following is a list of comments which Hammontree & Associates has developed during the review process:

1. Canton Drop Forge may wish to maintain the ability to discharge the "yard" O/W separator back into Pond one (1). Small piping changes would make this option possible.
2. There is no apparent reason to double pump from Pond one (1) to Pond two (2). The sump pump in the press room can easily be by-passed. We understand this sump may already be by passed. There should be a separate force main from the separator at the south end of the Forge Shop to the storm sewers draining into Lagoon #2. Have you considered discharging by gravity into Lagoon #1? We expect Lagoon #1 to continue to receive storm water discharges.
3. Should the drain in the oil house be connected to the 6" PVC pipe which ties into the "yard" O/W separator?

Done

YES

1(c)
May 23, 1995

**SUMMARY OF THE REVIEW OF BIDS
CANTON DROP FORGE PROJECT #95-1
INDUSTRIAL PRETREATMENT**

The two bids received were reviewed for technical merit and construction costs. The obvious difference between the bids is the base bid cost. Workman Industrial bid \$260,101. Bowen Engineering Corporation and Floyd Browne & Associates (FBA) bid \$398,000. The technical differences appear to be largely responsible for the disparity between the bids.

Workman Industrial qualified their bid with the assumption that no emulsified oils existed. Bowen Engineering Corporation and FBA suspected the occurrence of emulsified oils due to past experience at Canton Drop Forge.

To allow for truly competitive bidding, samples of the plant discharge with potentially emulsified oils are being provided to each bidder. These "representative" samples shall be used by each bidder to determine the level of treatment which can be achieved by conventional technologies and the associated costs.

Bidders should be aware that higher discharge limits may be approved if the associated cost savings is substantial.

Once the bidders have had the opportunity to evaluate the removal of the "emulsified oils" and adjust their bids (if required), a meeting with each individual bidder shall be held to discuss their bid.

At the individual bid meetings the bidders shall be required to provide product data sheets and other materials as required to demonstrate the suitability of the chosen equipment. Operation and maintenance as well as cost will be important.

- HAMMONTREE & ASSOCIATES, LIMITED -

**CANTON DROP FORGE
CONTRACT #95-1
INDUSTRIAL PRETREATMENT
COMPARISON**

	<u>Workman</u>	<u>FBA</u>
1. Base Price	\$260,101	\$398,000
2. Qualifications		
a. 10 mg/l	Yes	?
b. Emulsified Oil (95 Specific Gravity)	No	Yes
c. 200 GPM Separator	Add \$10,125	N/A
d. Assumes Gravity Feed from H.P.S.	Yes	N/A
e. Pilot Study	Included	Extra
f. OEPA PTI	?	Yes
3. Surety	Yes	No
4. Bid Bond	Yes	No
5. Non-Collusion Affidavit	Yes	Yes

Note: This comparison sheet will be filled out more completely once the bidders have the opportunity to examine the potentially emulsified oil/water stream and the individual interviews with Canton Drop Forge have occurred.

- HAMMONTREE & ASSOCIATES, LIMITED -

QUESTIONNAIRE FOR BIDDERS
CANTON DROP FORGE PROJECT #95-1
INDUSTRIAL PRETREATMENT

1(c), 1(d),
1(e)

ITEM 4.1: 120 gpm oil/water separation yard system complete.

A. What is the proposed brand and model?

The proposed brand will be a MACK INDUSTRIES' 100 GPM CONCRETE VERTICAL
TUBE SEPARATOR (CVTS). The model chosen is based on the amount of flow
that will pass through the unit; any additional capacity will further
increase the unit's ability to handle surges.

B. What capacity does it have?

The integral storage capacity of the waste oil chamber is 700 gallons
for the Model 100 CVTS. The total capacity of the unit is 1,570 gallons.

The integral storage capacity of the waste oil chamber is 360 gallons
for the Model CVTS 50. The total capacity of the unit is 1,450 gallons.

C. What is the operating principle?

The combination of influent water, oils and solids enter the chamber
and pass through the vertical polypropylene tubes. As the influent
passes through the tubes, the tubes catch oil globules and allow them
to float to the surface where a skimmer trough will pass the oil into a
holding chamber. The clean water will simply pass through the tubes and
out the tank; any solids will settle out in the bottom of the tank in a
sludge capture basin.

G. Does the manufacturer supply performance and mechanical guarantees or warranties? How long?

The manufacturer's warranty on the performance of the unit will be supplied by AFL Industries. The structural integrity of the unit will be supplied by MACK INDUSTRIES with a design life of (20) years.

H. Has the manufacturer received samples and verified performance capabilities?

Samples have not been received from Canton Drop Forge and hence performance has not been verified.

I. Will the unit be able to achieve the 10 mg/l requirement? Can the unit handle emulsified oils?

This unit will be able to handle non-permanently emulsified oil, grease and petroleum hydrocarbons at 0.1% of the influent concentration and achieve the required effluent of 10 mg/l.

J. If the 10 mg/l requirement can not be achieved, what treatment level can be achieved?

N/A

K. Is there a substantial cost savings to Canton Drop Forge by using a higher effluent limit from this unit?

There is a possibility.

L. What flexibility does the proposed unit have (expandability, waste-stream, spills, composition)?

The unit has the ability to address almost any field conditions due to the inherent flexibility present with the use of precast concrete.

FROM : 2WORKMAN-INDUSTRIAL-SERVICES

PHONE NO. : 2166787002

Jun. 05 1995 09:08AM P07

M. Miscellaneous comments.

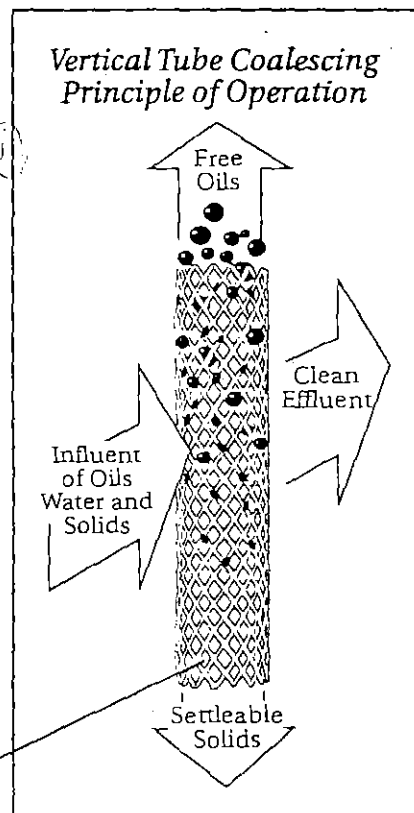
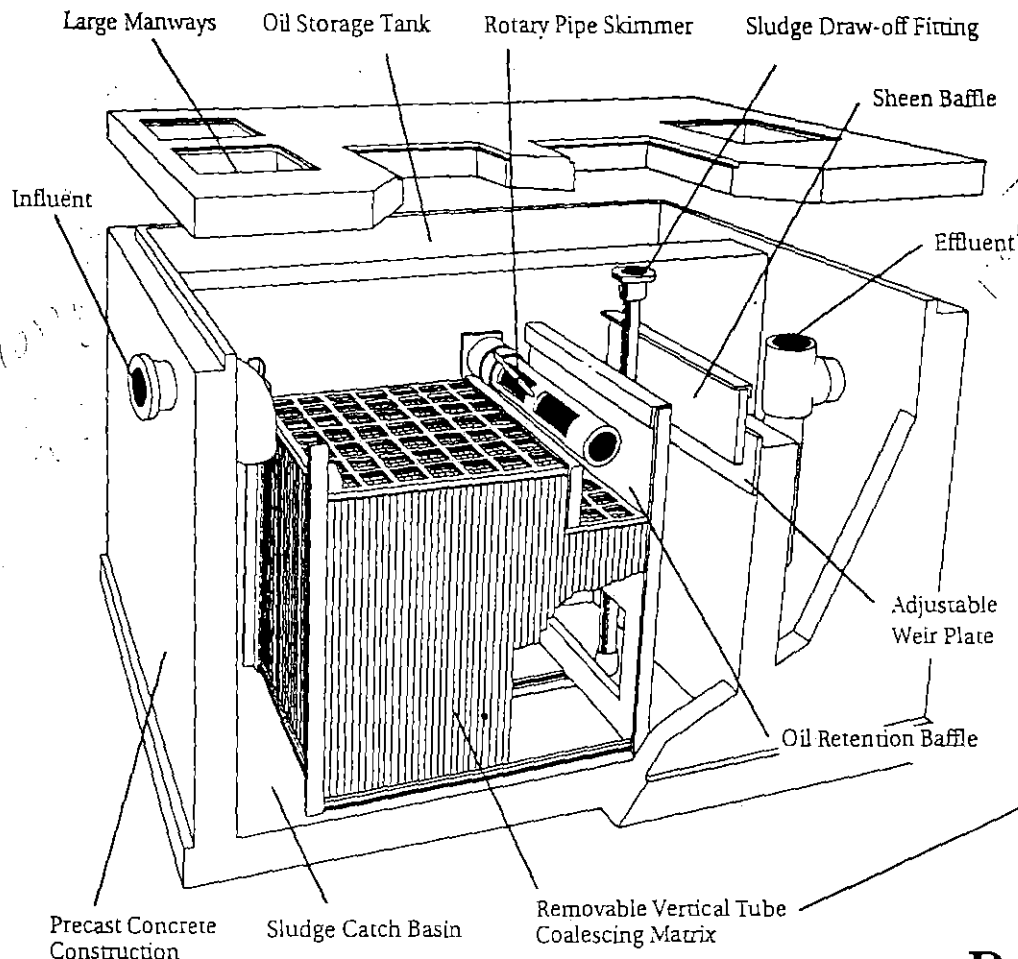


Harrisonburg Plant
P. O. Box 432
Harrisonburg, Virginia 22801
1-800-648-(CAST)2278

Halltown Plant
P. O. Box 120
Halltown, West Virginia 25423
1-800-648-4580

PRIMARY TREATMENT
Concrete Vertical
Tube Separator
(CVTS) 50 GPM

Function:
Removes Free Oils,
Non-Permanent
Mechanically
Emulsified Oils,
Settleable Solids



Product Bulletin

CVTS 50 GPM

Features

- More efficient separation
- Corrosion-resistant throughout
- Pre-engineered, prepackaged, ready to install
- Self-contained, no power source required
- Built-in oil storage

The CVTS removes hydrocarbons and settleable solids from stormwater, industrial wastewater and coolant.

In operation, this separator accepts industrial and stormwater liquid waste in the inlet chamber. Here settleable solids fall to the bottom as sludge for periodic removal.

Then the waste stream enters the coalescing separation chamber. Matrix of vertically-positioned polypropylene tubes gives laminar flow characteristics to the liquid. The result is a liquid more responsive to gravity separation.

The tubes also provide a coalescing medium. Oleophilic in nature, they attract small oil globules which coalesce then break away to rise through the tubes to the top. Surface oil drains by gravity into a rotary pipe skimmer for discharge to an integral storage tank.

Performance that can be expected of the CVTS separator is:

- (1) removal of oil globules down to 20 micron size
- (2) reduction of oil content to 10 mg/ltr.

The CVTS removes even non-permanent mechanically emulsified oil. It leaves no visible sheen and traps solids too. In metalworking and similar applications, it removes more than 99 per cent of tramp oils from coolants.

The CVTS incorporates concrete construction. Internally reinforced, the structure withstands severe soil and hydraulic loadings, with H-20 loading and greater.

Equipment and construction options are available. These include the AFL/Clark oil stop valve, and grit interceptors.

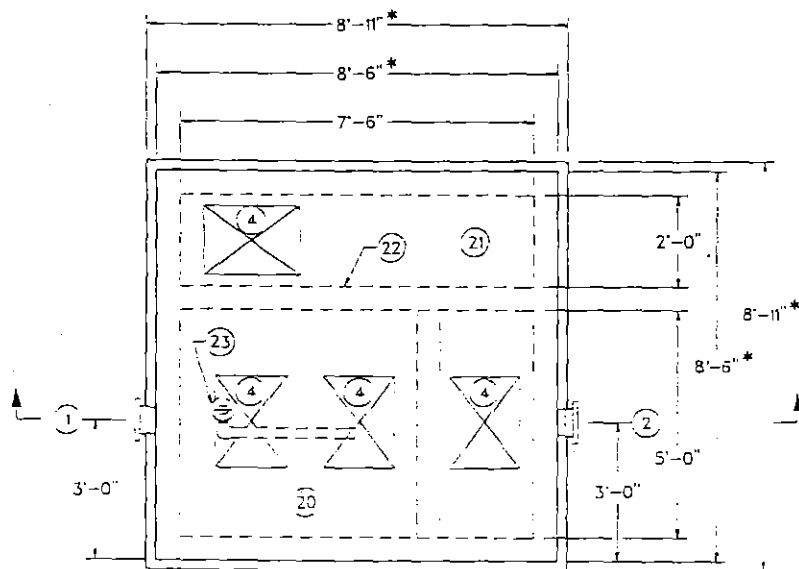


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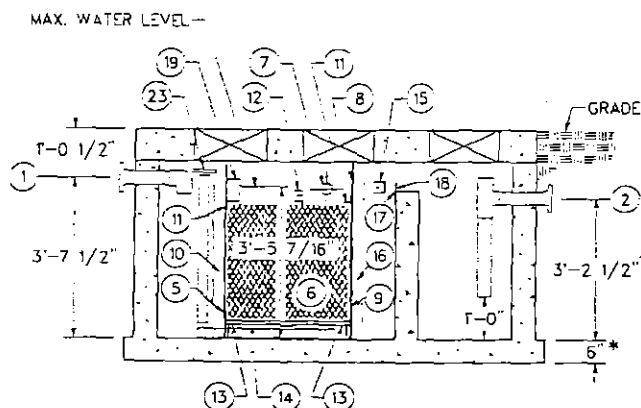
Assembly List CVTS 50 GPM

- 1 4" Ø Inlet, Flanged
- 2 4" Ø Outlet, Flanged
- 3 3" Ø Transfer Pipe
- 4 Access Manways**
- 5 Inlet Baffle
- 6 Vertical Tube Coalescers
- 7 3" Ø Rotary Pipe Skimmer
- 8 Oil Retention Baffle
- 9 Sludge Baffle
- 10 Vertical Tube Support (2 Required)
- 11 Horizontal Tube Hold Down w/handle
- 12 Intermediate Tube Hold Down w/handle
- 13 Bottom Tube Support (6 Required)
- 14 Bottom Grating
- 15 Sheen Baffle
- 16 Vertical Angle for 8 & 9
- 17 Adjustable Outlet Weir Plate
- 18 Weir Plate Gasket
- 19 Swivel Angle Arm for Tube Hold Down
- 20 CVTS Chamber
- 21 Integral Waste Oil Storage Chamber
- 22 Partition Wall
- 23 2" Ø Sludge Drawoff, Flanged

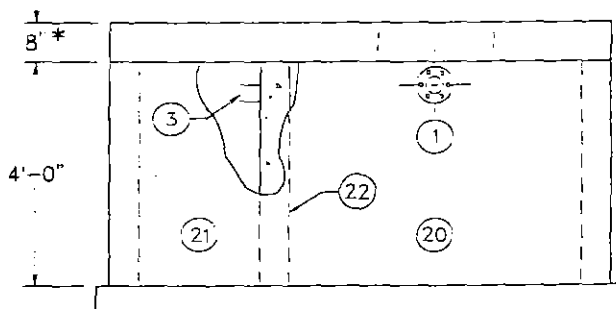


Plan View

* Floor, walls, and top slab dimensions as shown are for reference only. Actual thickness will be determined by a professional engineer based on individual applications
**Manway sizes & locations will vary with each specific unit.



Section View



Inlet Elevation

Separator Model	Weight of Top Slab	Weight of Structure with Internals	Coalescing Surface Area Ft ²	Integral Waste Oil Storage Capacity
CVTS-50F2	6,900 lbs.	19,450 lbs.	1582	360 Gal.

$$TOTAL 1090 + 360 = 1450$$

Dimensions, Weights, and Capacities are for reference only and are not to be used for construction.

Additional Notes & Installation Procedures on back.



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PERFORMANCE

The separator shall be rated for a flow of 100 gpm and shall be designed to discharge 10 mg/L of free and non-permanently mechanically emulsified oil, grease and petroleum hydrocarbons at 0.1% influent concentrations, 40° F operating temperature, and 0.85 specific gravity.

To achieve the above performance it will be necessary to remove all free oil droplets equal to or greater than 20 microns.

GENERAL DESCRIPTION

The separator shall be a pre-packaged, ready-to-install, rectangular unit incorporating the following:

- 2.1 A flow diverter at the inlet to reduce the horizontal velocity of the incoming flow.
- 2.2 An inlet chamber to disperse flow and collect solids.
- 2.3 A coalescing separation chamber consisting of vertically positioned, perforated, oleophilic tubes with minimum coalescing surface area equal to 1,748 ft².
- 2.4 The coalescing media assembled in packs individually fitted with lifting straps to facilitate its removal from the separator for inspection and/or cleaning.
- 2.5 An oil retention baffle placed at the end of the separation chamber.
- 2.6 A manually adjustable rotary pipe skimmer in the separation chamber for removing separated oil. Oil collected in the skimmer shall discharge by gravity to the integral oil storage tank.
- 2.7 A sludge collection trough in the separation chamber.
- 2.8 An outlet chamber with an adjustable weir and a screen baffle ahead of the weir to stop any residual oil from flowing over the weir.
- 2.9 A clear-weil chamber shall be fitted with a T-pipe outlet which shall allow discharge from the bottom of the chamber only.
- 2.10 Integral storage chamber for separated oil shall be 700 / gallons.

PRIMARY TREATMENT Concrete Vertical Tube Separator (CVTS) 100 GPM

Function:
Removes Free Oils,
Non-Permanent
Mechanically
Emulsified Oils,
Settleable Solids

- 2.11 A closed top with vent connection(optional).
- 2.12 Manways providing access to all chambers of separator. The manways shall be of a size sufficient for the removal of coalescing packs from the separator.

CONSTRUCTION & MATERIAL

- 3.1 The separator shall be designed for installation flush with grade, as specified, and shall have the structural strength to withstand the associated soil and hydraulic loadings. Height extensions available to meet existing inlet/outlet inverts.
- 3.2 All the pipes and fittings in the separator shall be of a PVC compound meeting the requirements of Type 1, Grade 1 polyvinyl chloride as outlined in ASTM D-1784, unless specified otherwise.
- 3.3 The separator shall pass hydraulic testing before shipping.

QUALITY ASSURANCE

- 4.1 Submittals:
 - a. Shop drawings: manufacturer shall submit shop drawings for each separator. Drawings shall show vital dimensions and locations of all fittings and accessories.
 - b. Installation, Operation and Maintenance Instructions. Three (3) copies shall accompany each separator.
- 4.2 Warranty: See enclosed Americast warranty.

OPTIONAL EQUIPMENT

The separator can be provided with the following optional equipment:

- 5.1 AFL/Clark oil stop valve.
- 5.2 Grit Interceptors

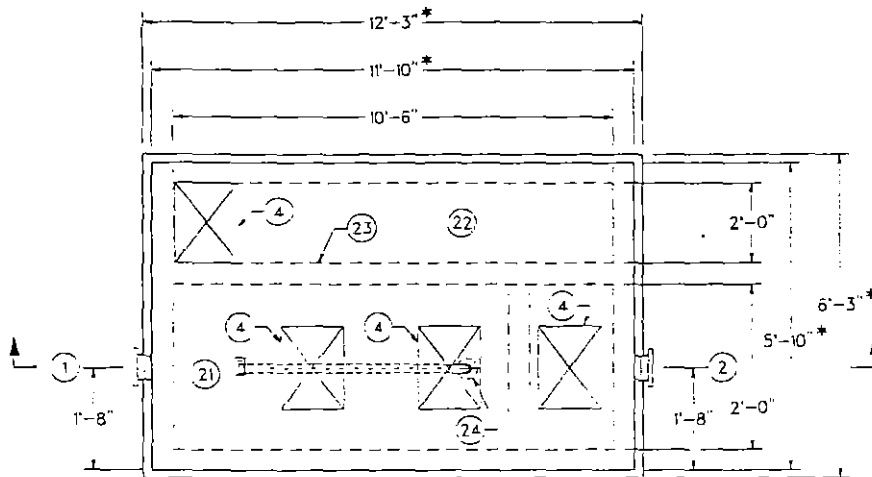


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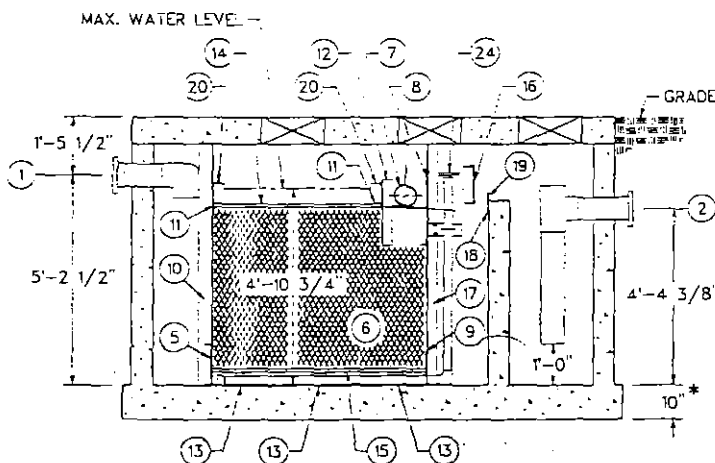
Assembly List CVTS 100 GPM

- 1 6" Ø Inlet, Flanged
- 2 6" Ø Outlet, Flanged
- 3 6" Ø Transfer Pipe
- 4 Access Manways**
- 5 Inlet Baffle
- 6 Vertical Tube Coalescers
- 7 6" Ø Rotary Pipe Skimmer
- 8 Oil Retention Baffle
- 9 Sludge Baffle
- 10 Vertical Tube Support (2 Required)
- 11 Horizontal Tube Hold Down w/handle
- 12 Vertical Tube Support (2 Required)
- 13 Bottom Tube Support (6 Required)
- 14 Top Grating
- 15 Bottom Grating
- 16 Sheen Baffle
- 17 Vertical Angle for 8 & 9
- 18 Adjustable Outlet Weir Plate
- 19 Weir Plate Gasket
- 20 Swivel Angle Arm for Tube Hold Down
- 21 CVTS Chamber
- 22 Integral Waste Oil Storage Chamber
- 23 Partition Wall
- 24 2" Ø Sludge Drawoff, Flanged

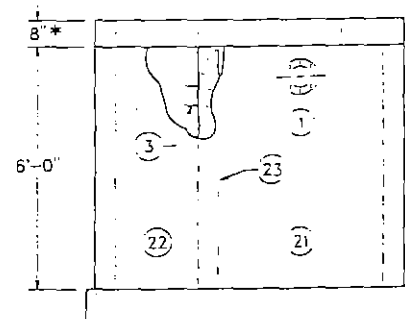


Plan View

* Floor, walls, and top slab dimensions as shown are for reference only. Actual thickness will be determined by a professional engineer based on individual applications
**Manway sizes & locations will vary with each specific unit.



Section View



Inlet Elevation

Separator Model	Weight of Top Slab	Weight of Structure with Internals	Coalescing Surface Area Ft ²	Integral Waste Oil Storage Capacity
CVTS-100F2	6,600 lbs.	35,000 lbs.	1748	700 Gal.

$$TOTAL = 700 + 870 = 1570 \text{ GALS}$$

Dimensions, Weights, and Capacities are for reference only and are not to be used for construction.

Additional Notes & Installation Procedures on back.



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PRIMARY TREATMENT *Concrete Vertical Tube Separator* (CVTS) 200 GPM

Function:
Removes Free Oils,
Non-Permanent
Mechanically
Emulsified Oils,
Settleable Solids

PERFORMANCE

The separator shall be rated for a flow of 200 gpm and shall be designed to discharge 10 mg/L of free and non-permanently mechanically emulsified oil, grease and petroleum hydrocarbons at 0.1% influent concentrations, 40° F operating temperature, and 0.85 specific gravity.

To achieve the above performance it will be necessary to remove all free oil droplets equal to or greater than 20 microns.

GENERAL DESCRIPTION

The separator shall be a pre-packaged, ready-to-install, rectangular unit incorporating the following:

- 2.1 A flow diverter at the inlet to reduce the horizontal velocity of the incoming flow.
- 2.2 An inlet chamber to disperse flow and collect solids.
- 2.3 A coalescing separation chamber consisting of vertically positioned, perforated, oleophilic tubes with minimum coalescing surface area equal to 3,496 ft².
- 2.4 The coalescing media assembled in packs individually fitted with lifting straps to facilitate its removal from the separator for inspection and/or cleaning.
- 2.5 An oil retention baffle placed at the end of the separation chamber.
- 2.6 A manually adjustable rotary pipe skimmer in the separation chamber for removing separated oil. Oil collected in the skimmer shall discharge by gravity to the integral oil storage tank.
- 2.7 A sludge collection trough in the separation chamber.
- 2.8 An outlet chamber with an adjustable weir and a sheen baffle ahead of the weir to stop any residual oil from flowing over the weir.
- 2.9 A clear-well chamber shall be fitted with a T-pipe outlet which shall allow discharge from the bottom of the chamber only.
- 2.10 Integral storage chamber for separated oil shall be 700 / gallons.

- 2.11 A closed top with vent connection(optional).
- 2.12 Manways providing access to all chambers of separator. The manways shall be of a size sufficient for the removal of coalescing packs from the separator.

CONSTRUCTION & MATERIAL

- 3.1 The separator shall be designed for installation flush with grade, as specified, and shall have the structural strength to withstand the associated soil and hydraulic loadings. Height extensions available to meet existing inlet/outlet inverts.
- 3.2 All the pipes and fittings in the separator shall be of a PVC compound meeting the requirements of Type 1, Grade 1 polyvinyl chloride as outlined in ASTM D-1784, unless specified otherwise.
- 3.3 The separator shall pass hydraulic testing before shipping.

QUALITY ASSURANCE

- 4.1 Submittals:
 - a. Shop drawings: manufacturer shall submit shop drawings for each separator. Drawings shall show vital dimensions and locations of all fittings and accessories.
 - b. Installation, Operation and Maintenance Instructions. Three (3) copies shall accompany each separator.
- 4.2 Warranty: See enclosed Americast warranty.

OPTIONAL EQUIPMENT

The separator can be provided with the following optional equipment:

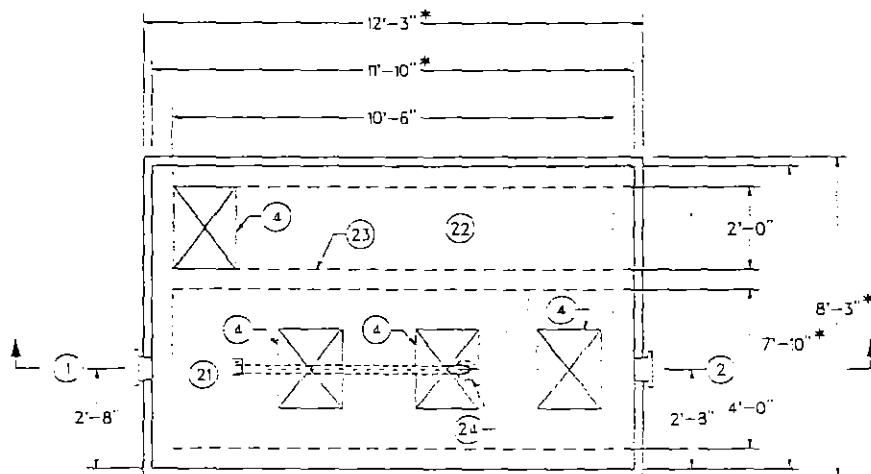
- 5.1 AFL/Clark oil stop valve.
- 5.2 Grit Interceptors



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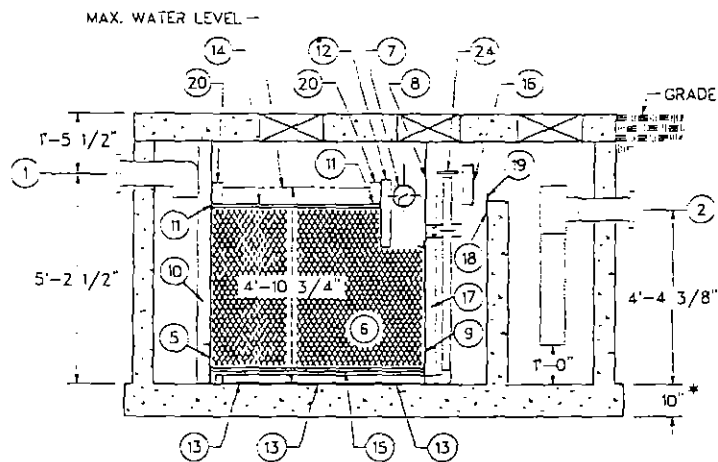
Assembly List CVTS 200 GPM



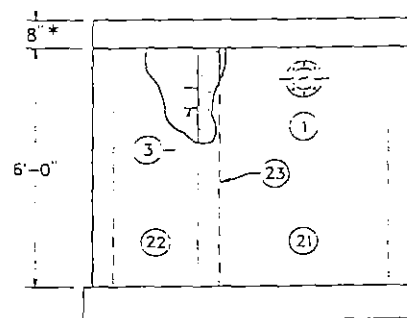
Plan View

- 1 6" Ø Inlet, Flanged
- 2 6" Ø Outlet, Flanged
- 3 6" Ø Transfer Pipe
- 4 Access Manways**
- 5 Inlet Baffle
- 6 Vertical Tube Coalescers
- 7 6" Ø Rotary Pipe Skimmer
- 8 Oil Retention Baffle
- 9 Sludge Baffle
- 10 Vertical Tube Support (2 Required)
- 11 Horizontal Tube Hold Down w/handle
- 12 Vertical Tube Support (2 Required)
- 13 Bottom Tube Support (6 Required)
- 14 Top Grating
- 15 Bottom Grating
- 16 Sheen Baffle
- 17 Vertical Angle for 8 & 9
- 18 Adjustable Outlet Weir Plate
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- 21 CVTS Chamber
- 22 Integral Waste Oil Storage Chamber
- 23 Partition Wall
- 24 2" Ø Sludge Drawoff, Flanged

* Floor, walls, and top slab dimensions as shown are for reference only. Actual thickness will be determined by a professional engineer based on individual applications
**Manway sizes & locations will vary with each specific unit.



Section View



Inlet Elevation

Separator Model	Weight of Top Slab	Weight of Structure with Internals	Coalescing Surface Area Ft ²	Integral Waste Oil Storage Capacity
CVTS-200F2	8,950 lbs.	41,500 lbs.	3,496	700 Gal.

Dimensions, Weights, and Capacities are for reference only and are not to be used for construction

CDF005106

Additional Notes & Installation Procedures on back.

1301:7-9-02 DEFINITIONS.

(A) Purpose.

For the purpose of prescribing rules pursuant to sections 3737.88 to 3737.882 of the Revised Code, the fire marshal hereby adopts this rule to establish definitions of words and phrases related to underground storage tanks. This rule is adopted by the fire marshal in accordance with Chapter 119 of the Revised Code and shall not be considered a part of the "Ohio Fire Code."

(B) Definitions.

When used in this chapter of the Administrative Code, the following terms shall have the meanings given below:

(1) "Ancillary equipment" means any devices including, without limitation, such devices as piping, fittings, flanges, valves, and pumps used to distribute, meter, or control the flow of regulated substances to and from an UST.

(2) "Beneath the surface of the ground" means beneath the ground surface or otherwise covered with earthen materials.

(3) "Bureau chief" means the chief of the bureau of underground storage tank regulations within the division of the state fire marshal.

(4) "Cathodic protection" is a technique to prevent corrosion of a metal surface by making that surface the cathode of an electrochemical cell. An UST system can be cathodically protected, without limitation, through the application of either galvanic anodes or impressed current.

(5) "Cathodic protection tester" means a person who can demonstrate an understanding of the principles and measurements of all common types of cathodic protection systems as applied to buried or submerged metal piping and UST systems. At a minimum, such persons shall have education and experience in soil resistivity, stray current, structure-to-soil potential, and component electrical isolation measurements of buried metal piping and UST systems.

(6) "Compatible" means the ability of two or more substances to maintain their respective physical and chemical properties upon contact with one another for the design life of the

UST system under conditions likely to be encountered in the UST.

(7) "Connected piping" means all underground piping including valves, elbows, joints, flanges, and flexible connectors attached to an UST system through which regulated substances flow. For the purpose of determining how much piping is connected to any individual UST system, the piping that joins two UST systems should be allocated equally between them.

(8) "Consumptive use" with respect to heating fuel means consumed on the premises.

(9) "Corrective action" means any action necessary to protect human health and the environment in the event of a release of petroleum into the environment, including, without limitation, any action necessary to monitor, assess, and evaluate the release. In the instance of a suspected release, the term includes, without limitation, an investigation to confirm or disprove the occurrence of the release. In the instance of a confirmed release, the term includes, without limitation, the initial corrective action taken under section 3737.88 or 3737.882 of the Revised Code, or orders issued under those sections, and any initial corrective action taken under this chapter of the Administrative Code and any action taken consistent with a remedial action to clean up contaminated ground water, surface water, soils, and subsurface material and to address the residual effects of a release after the initial corrective action is taken.

(10) "Corrosion expert" means a person who, by reason of thorough knowledge of the physical sciences and the principles of engineering and mathematics acquired by a professional education and related practical experience, is qualified to engage in the practice of corrosion control on buried or submerged metal piping systems and metal tanks. Such a person shall be accredited or certified as being qualified by the national association of corrosion engineers or be a registered professional engineer who has certification or licensing that includes education and experience in corrosion control of buried or submerged metal piping systems and metal tanks.

(11) "Dielectric material" means a material that does not conduct direct electrical current. Dielectric coatings are used to electrically

isolate UST systems from the surrounding soils. Dielectric bushings are used to electrically isolate portions of the UST system.

(12) "Electrical equipment" means underground equipment that contains dielectric fluid that is necessary for the operation of equipment such as transformers and buried electrical cable.

(13) "Excavation zone" means the volume containing the UST system and backfill material bounded by the ground surface, walls, and floor of the pit and trenches into which the UST system is placed at the time of installation.

(14) "Existing UST system" means an UST system used to contain an accumulation of regulated substances or for which installation has commenced on or before the effective date of this rule. Installation is considered to have commenced if:

(a) The owner or operator has obtained all federal, state, and local approvals or permits necessary to begin physical construction of the site or installation of the UST system; and if,

(b) (i) Either a continuous on-site physical construction or installation program has begun; or,

(ii) The owner or operator has entered into contractual obligations, which cannot be cancelled or modified without substantial loss, for physical construction at the site or installation of the UST system to be completed within a reasonable time.

(15) "Farm tank" is a tank located on a tract of land devoted to the production of crops or raising animals, including fish, and associated residences and improvements. A farm tank shall be located on the farm property. "Farm" includes fish hatcheries, rangeland and nurseries with growing operations.

(16) "Flow-through process tank" is a tank that forms an integral part of a production process through which there is a steady, variable, recurring, or intermittent flow of

materials during the operation of the process. Flow-through process tanks do not include tanks used for the storage of materials prior to their introduction into the production process or for the storage of finished products or by-products from the production process.

(17) "Free product" refers to a regulated substance that is present as a nonaqueous phase liquid.

(18) "Gathering lines" means any pipeline, equipment, facility, or building used in the transportation of oil or gas during oil or gas production or gathering operations.

(19) "Hazardous substance" means any substance listed in rule 1301:7-9-03 of the Administrative Code, but not including any substance regulated as a hazardous waste under Chapters 3745-50 to 3745-69 of the Administrative Code, or any mixture of such substance and petroleum which is not contained in a petroleum UST system.

(20) "Hazardous substance UST system" means an underground storage tank system that contains a hazardous substance.

(21) "Heating fuel" means petroleum that is No. 1, No. 2, No. 4-Light, No. 4-Heavy, No. 5-Light, No. 5-Heavy, and No. 6 Technical grades of fuel oil; other residual fuel oils including, without limitation, Navy Special Fuel Oil and Bunker C; and other fuels when used as substitutes for one of these fuel oils. Heating fuel is typically used in the operation of heating equipment, boilers, or furnaces.

(22) "Hydraulic lift tank" means a tank holding hydraulic fluid for a closed-loop mechanical system that uses compressed air or hydraulic fluid to operate lifts, elevators, and other similar devices.

(23) "Liquid trap" means sumps, well cellars, and other traps used in association with oil and gas production, gathering, and extraction operations including gas production plants, for the purpose of collecting oil, water, and other liquids. These liquid traps may temporarily collect liquids for subsequent disposition or reinjection into a production or pipeline stream, or may collect and separate liquids from a gas stream.

(24) "Maintenance" means the normal operational upkeep to prevent an underground storage tank system from releasing product.

(25) "Motor fuel" means petroleum or a petroleum-based substance that is motor gasoline, aviation gasoline, No. 1 or No. 2 Diesel fuel, or any grade of gasohol, and is typically used in the operation of a motor engine.

(26) "New UST system" means an UST system that will be used to contain an accumulation of regulated substances and for which installation has commenced after the effective date of this rule.

(27) "Noncommercial purposes" with respect to motor fuel means not for resale.

(28) "On the premises where stored" with respect to heating oil means UST systems located on the same property where the stored heating oil is used.

(29) "Operational life" refers to the period beginning when installation of the UST system has commenced until the time the UST system is properly closed under this chapter.

(30) "Operator" means the person in daily control of, or having responsibility for the daily operation of, the UST system.

(31) "Overfill" is a release that occurs when a tank is filled beyond its capacity, resulting in a discharge of the regulated substance to the environment.

(32) "Owner" means:

(a) In the instance of an underground storage tank system in use on November 8, 1984, or brought into use after that date, the person who owns the underground storage tank system;

(b) In the instance of an underground storage tank system in use before November 8, 1984, but no longer in use on that date, the person who owned the underground storage tank system immediately before the discontinuation of its use.

The term includes any person who holds, or, in the instance of an underground

storage tank in use before November 8, 1984, but no longer in use on that date, any person who held immediately before the discontinuation of its use, a legal, equitable, or possessory interest of any kind in an underground storage tank system or in the property on which the underground storage tank system is located, including, without limitation, a trust, vendor, vendee, lessor, or lessee. The term does not include any person who, without participating in the management of an underground storage tank system and without otherwise being engaged in petroleum production, refining, or marketing, holds indicia of ownership in an underground storage tank system primarily to protect the person's security interest in it.

(33) "Person", in addition to the meaning in section 3737.01 of the Revised Code, means the United States and any department, agency, or instrumentality thereof.

(34) "Petroleum" means petroleum, including crude oil or any fraction thereof, that is a liquid at the temperature of sixty degrees Fahrenheit and the pressure of fourteen and seven-tenths pounds per square inch absolute. The term includes, without limitation, motor fuels, jet fuels, distillate fuel oils, residual fuel oils, lubricants, petroleum solvents, and used oils.

(35) "Petroleum UST system" means an underground storage tank system that contains petroleum or a mixture of petroleum with *de minimus* quantities of other regulated substances.

(36) "Pipe" or "piping" means a hollow cylinder or tubular conduit that is constructed of man-made materials.

(37) "Pipeline facilities" are new and existing pipe rights-of-way and any associated equipment, including, without limitation, gathering lines; facilities; or buildings.

(38) "Political subdivision" means a municipal corporation, township, county, school district, or other body corporate and politic responsible for governmental activities in a geographic area smaller than that of the state.

(39) **"Regulated substance"** means:

- (a) Any hazardous substance; and
- (b) Petroleum.

(40) **"Release"** means any spilling, leaking, emitting, discharging, escaping, leaching or disposing from an UST system into ground water, surface water or subsurface soils or otherwise into the environment.

(41) **"Release detection"** means determining whether a release of a regulated substance has occurred from the UST system into the environment or into the interstitial space between the UST system and its secondary barrier or secondary containment around it.

(42) **"Repair"** means to restore a tank or UST system component that has caused a release of product from the UST system.

(43) **"Residential tank"** is a tank located on property used primarily for dwelling purposes.

(44) **"Septic tank"** is a water-tight covered receptacle designed to receive or process, through liquid separation or biological digestion, the sewage discharged from a building sewer. The effluent from such receptacle is distributed for disposal through the soil and settled solids and scum from the tank are pumped out periodically and hauled to a treatment facility.

(45) **"Spill"** means a release resulting from improper dispensing practices to an UST system including, without limitation, the disconnecting of a delivery hose from a tank's fill pipe before the hose has drained completely.

(46) **"State"** means the state of Ohio, including, without limitation, the general assembly, the supreme court, the offices of all elected state officers, and all departments, boards, offices, commissions, agencies, colleges, universities, institutions, and other instrumentalities of the state of Ohio. "State" does not include political subdivisions.

(47) **"Storm-water or wastewater collection system"** means piping, pumps, conduits, and any other equipment necessary to collect and transport the flow of surface water run-off

resulting from precipitation, or domestic, commercial, or industrial wastewater to and from retention areas or any areas where treatment is designated to occur. The collection of storm water and wastewater does not include treatment except where incidental to conveyance.

(48) **"Surface impoundment"** is a natural topographic depression, man-made excavation, or diked area formed primarily of earthen materials, although it may be lined with manmade materials, that is not an injection well.

(49) **"Tank"** is a stationary device designed to contain an accumulation of regulated substances that is constructed of man-made materials.

(50) **"Underground area"** means an underground room, such as a basement, cellar, shaft, or vault, providing enough space for physical inspection of the exterior of the tank situated on or above the surface of the floor.

(51) **"Upgrade"** means the addition or retrofit of some systems such as cathodic protection, lining, or spill and overfill controls to improve the ability of an underground storage tank system to prevent the release of product.

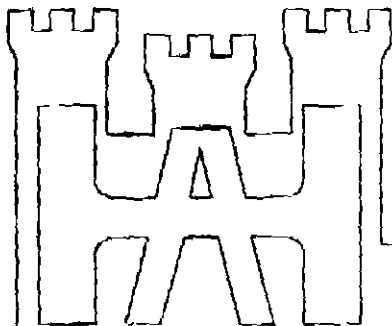
(52) **"Underground storage tank"** means one or any combination of tanks, including the underground pipes connected thereto, that are used to contain an accumulation of regulated substances the volume of which, including the volume of the underground pipes connected thereto, is ten per cent or more beneath the surface of the ground.

The term does not include any of the following:

(a) Pipeline facilities, including gathering lines, regulated under the "Natural Gas Pipeline Safety Act of 1968," 82 Stat. 720, 49 U.S.C.A. 2001, as amended;

(b) Farm or residential tanks of one thousand one hundred gallons or less capacity used for storing motor fuel for noncommercial purposes;

(c) Tanks used for storing heating fuel for consumptive use on the premises



FACSIMILE TRANSMITTAL

DATE: 8-10-95 TIME: 9:05 (☒ A.M. () P.M.)

TO: NAME: KEITH HOUSE KN PC7
BUSINESS NAME: CANTON DRUG FORGE
FACSIMILE NUMBER: 977-2046

FROM: HAMMONTREE AND ASSOCIATES, LIMITED
5233 STONEHAM ROAD
NORTH CANTON, OHIO 44720

TELEPHONE NUMBERS: (216) 499-8817 CANTON OFFICE
(216) 633-7274 AKRON OFFICE
(216) 499-0149 FACSIMILE

SENDER'S NAME: GENE HILL
PROJECT: CANTON DRUG FORGE
NUMBER OF PAGES (INCLUDING THIS PAGE): 2
BRIEF DESCRIPTION (OPTIONAL): _____

ADDITIONAL INSTRUCTIONS OR MESSAGES TO RECIPIENT:

2(b)

1995 1996 AFTER

Bio Pond #1

Seeding Lagoon #1	3,000	-	-
" South Rim		1,800	
Remove Mat'l 2921 cu yd	16065.50		
Transport "	16941.80		
Construct Bio Cell	1,920	13,136.27	59,843.03
Inoculation of Mat'l	35,052		
	72,979.30		

Bio Pond #2

PHASE I	#130,879	
PHASE II		50-200,000



Hydromechanics Div.

2(b)

	1995	1996	AFSB
Bio Pond #1	14,936.27	59,843.03	
Bio Pond #2			150,000
SEPARATOR PHASE I		130,879	
SEPARATOR PHASE II			80-200,000

J. CURTISS & ASSOCIATES
524 Parkway View Drive
Pittsburgh, PA 15205
Phone: 412/788-1550
Fax: 412/788-1555

CDF005113

2(b)

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- ① Remediation of the lagoons will not have a direct effect on HOBBS
- ② The proposed change order was sent out without CDF review.
- ③ Also
It was well known that the bio cell was not properly leveled. Several weeks after the cell was full I helped Jerry Coon find YWC via Ed Green. Jerry C had a magazine article that contained info on the Brown Bear Auger-Aerator. ∴ He Jerry C could not have known that he would use an Auger-Aerator nor that debris would be a problem.
Beaver was allowed to store high liquid mat'l together instead of mixing.
To my knowledge no bulking mat'l was added. Beaver was allowed to mix and dump mat'l randomly as opposed to placing large pieces in one area.
Hydrogen Peroxide was set up but not used effectively. Jerry C decided (I think) that it was not needed. (No set procedure)
Bulking, Seeding, Testing & Turning has not occurred on a regular schedule (No set procedure)

J. CURTISS & ASSOCIATES
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- ④ Do we have a set procedure for approving & paying when CDF \$ are being spent? I assume much of the same approval processes will be used.
- ⑤ I would rather have a set schedule for aeration, seeding, bulking, & testing, based on TCC's expert opinion, today. I don't think we will be plagued with the results if we rely on this statement for performance.
- ⑥ Initial TPH levels of Cell 1 is complete
Who pays for testing
Who initiated testing
One sample min. must come from area of excess liquid.
Who pays for ~~the~~ DHC DPO analysis?
- ⑦ Why not just sample now? It has been way over a month since the last sample.
- ⑧ What is 'the work'?
Cell #1 6/95 - 9/96
Cell #2 6/97 - 9/98
Cell #3 6/99 - 9/00
- ⑨ If in-stu - - - - 30000y, from Lagoon #1 and 9000 (should this be 6,000?) c.y. from Lagoon #2 - - - -

J. CURTISS & ASSOCIATES
524 Parkway View Drive
Pittsburgh, PA 15205
Phone: 412/788-1550
Fax: 412/788-1555

2(b), 1(c)

6

CANTON DROP FORGE, AUDIT ACTION PLAN

MARCH 31, 1995 PROGRESS REPORT

Following is a progress report on each of the three projects described in the March 31, 1993 Canton Drop Forge Audit Action Plan.

Project I - PCB Remediation

The plan was to complete soil tests, specify scope, prepare a remediation action plan and file that plan (if required) with OEPA. Actual remediation activity was to occur after receiving OEPA approval of the plan.

As indicated in the last report, no further action is contemplated on Project I.

Project II - Remediation of Area Near Hole 8

Commencement of this project has been rescheduled to follow Project III (see below).

Phase A of this project, to delineate the scope of work, perform feasibility studies and file an action plan with OEPA (if required), will begin once the lagoon remediation phase of Project III is underway.

Phase B remediation activity will begin within 6 months after the start of Phase A, weather permitting.

Project III - Pretreatment System/Lagoon Remediation

Phase A, Task 1 of this project, comprising three subtasks, is for delineation of scope, concept development, final design and permitting of a new process water pretreatment system.

Subtask 1(a), for determining and/or estimating efficient flow rates is complete.

Subtask 1(b), for analysis and determination of constituents of effluents and surface emulsions from lagoon 1 is complete.

Subtask 1(c), is for selection of potential designers of (and equipment producers for) the pretreatment system, obtaining their quotations, selecting the preferred designer, agreeing on a final design and filing for a permit to install. The initial design of the pretreatment is complete, including cost estimates for the materials and installation of the complete system. Hammontree

and Associates was retained to review the design, prepared by FBA Environmental, for adequacy, acceptability and efficiency. Their review is complete and they conclude that the system design should meet CDF's needs. At our request, Hammontree also prepared a bid specification document to insure that potential system builders all quote uniformly on a consistent, specific system. This document has been reviewed and found acceptable. Requests for quotes have been sent to three potential builders including Hammontree and FBA Environmental. The bid document requires the system builder be responsible for all required permits, including those of the OEPA.

The current system design calls for retention of all three existing lagoons for control of process water and steam condensate, because Massillon water department continues to be unwilling to accept the pretreated discharge.

Phase A - Task 2 is for construction and installation of the pretreatment system. This phase will begin directly following acceptance of the quote of one of the bids, discussed under Project III, Phase A, Task 1, Subtask 1(c). Construction should begin by May 15, 1995, assuming three weeks for receipt of quotes and selection of the builder and three weeks for the builder to initiate construction efforts.

Phase B - Task 1 for removal and proper disposal of emulsions from the two lagoons is nearly complete. Less than one inch of emulsion remains on Lagoon 1 and Lagoon 2 is routinely skimmed. This phase will continue, but at a reduced level, until the new oil separation system is installed and is operational.

Phase B - Task 2 to determine volumes and character of affected materials in the lagoons is complete. Soil samples from the bottoms of Lagoons 1 and 2 show no contaminants other than petroleum hydrocarbons. In addition to removing samples and analyzing them, Hammontree determined the contour of the bottom layers of sludge, measured its thicknesses and sent samples to one laboratory and three bioremediation firms. Laboratory results were also sent to the three bioremediation firms, and also two land fills for cost estimates of remediation or disposal. Hammontree recently issued a report of the work on Lagoon 1 and the report is now being reviewed within CDF. A similar report of work on Lagoon 2 will be issued within three weeks. Based on the report on Lagoon 1, two bioremediation firms have been interviewed and they have been asked to prepare precise quotes and plans for our review.

Phase B - Task 3 for actual remediation of Lagoons 1 and 2 will begin directly after Phase A - Task 2 is underway, as requested by the former shareholders.

SUMMARY OF REPORT - CDF AUDIT ACTION PLAN AT MARCH 31, 1995

<u>PROJECT</u>	<u>PHASE (TASK-SUBTASK)</u>	<u>STATUS</u>
I. <u>PCB Remediation</u>		Apparently not needed. Complete.
II. <u>Remediation near Hole 8</u>	A. Scope, feasibility, file plan for OEPA approval	Rescheduled to permit focus of CDF personnel on Project III Will begin after Proj. III is underway. Estimated start 8/95 Complete 11/95
	B. Remediation	Estimated start 4/96. Complete ?
III. <u>Pretreatment System and Lagoon Remediation</u>	A. Pretreatment System	
	A(1a) Effluent flow rates	Completed
	A(1b) Analyze effluents and surface emulsions	Completed
	A(1c) Final system design, quotes from builders, file for OEPA permit to install	Design complete Bid specification developed. RFQ's sent. Builder to be selected by 5/95. Permits filed by 6/95.
	A(2) Construct and install system	Start 7/95 and complete by 1/96, assuming no permit delay.
	B. Remediate Lagoons 1 & 2	
	B(1) Removal, disposal of emulsions	Only thin layer of emulsion remains. Will complete by 7/95.
	B(2) Determine volume, makeup of affected materials. Feasibility for remediation. File plan with OEPA for approval	Characterization of material completed, estimates of volume completed. Remediation alternatives reviewed, bioremediation selected --firm to be selected by 7/95. Decision whether OEPA required by 7/95.

SUMMARY OF REPORT - CDF AUDIT ACTION PLAN AT MARCH 31, 1995

<u>PROJECT</u>	<u>PHASE (TASK-SUBTASK)</u>	<u>STATUS</u>
III. <u>Pretreatment System</u> <u>and Lagoon Remediation</u> (continued)	B(3) Remediation	Remediation may be delayed until separation system functional, remnant emulsion removed, Lagoon 1 drained. May start as late as 5/96 if operational separation system required. Complete ?



CANTON DROP FORGE

2(b), 1(c), 3

William K. Cordier
Chairman

March 31, 1995

FAXED

Mr. John L. Hobey
President
The Olofsson Corporation as
CEI Group Agent
P.O. Box 27308
Lansing, MI 48909

Dear Jack:

I am writing this report to you, in your capacity as CEI Group Agent. It is the March 31, 1995 Progress Report on implementation of the Canton Drop Forge Audit Action Plan.

The Audit Action Plan comprises three projects: Project I for PCB remediation, Project II for remediation of the area around hole 8 and Project III for the pretreatment system and lagoon remediation.

Project I - PCB Remediation

The plan was to complete soil tests, specify scope, prepare a remediation action plan and file that plan (if required) with OEPA. Actual remediation activity was to occur after receiving OEPA approval of the plan.

After detailed consultation with Hammontree & Associates, R&R International and Day, Ketterer, plus individual inquiries elsewhere, plans for PCB remediation were abandoned. That decision followed verification that regulations would permit use of refill soil containing higher levels of PCB than the very low PCB levels in the "contaminated" soil to be removed.

No further action contemplated on Project I.

Project II - Remediation of Area Near Hole 8

There has been no further action on this project, because CDF technical personnel and the external consultants have had to concentrate all of their attention on the (more complex than envisioned) work of Project III (see below).

CDF005120

subtask (1c) continued

Requests for quotes were sent to three potential builders of the pretreatment system and responses were received from two (FBA Environmental and Workman Industrial Services). Both bidders quoted a pretreatment system comprising two separators-----"separator Y" to process discharge from the forge shop and nearby areas of the plant, and "separator B" to handle discharges from the remainder of the plant. Both bidders accepted the specified 10 PPM maximum oil content for treated discharge from separator Y, but neither would agree to a maximum oil content of treated effluent from separator B, which contains oil that is emulsified and is therefore extremely difficult to isolate and separate. Workman, the lower of the two bidders, was selected to install separator Y and to work with us further in developing an effective, reasonably priced separator B system. A contract for \$130,000 was signed with Workman for construction and installation of separator Y.

To assist in developing an appropriate design for separator B, a consultant with prior related experience was employed. Also, a number of companies that claimed to have systems that might be suitable for our needs were contacted. A specification and bid request was developed and issued for this separator (B).

Phase A - Task 2 is for construction and installation of the pretreatment system. As indicated above, Workman was awarded a contract to install separator Y, and installation was completed in late January. Some operational problems relating to the viscosity and tackiness of the grease and oil continue to be experienced with the system. However, the system is being routinely used to treat effluent from the plant proper prior to discharge into lagoon 2.

An RFQ for design and construction of separator B was sent to eight firms and their responses were due on March 22, 1996. All of the eight firms declined to quote, indicating that they were not willing to agree to a maximum level of oil in the discharge from a system because they were all uncertain of the potential efficiencies of any system in removing emulsified oil from the process stream. Numerous discussions and meetings have been held with potential system designers and a plan has been developed to install and operate a prototype system to provide a basis for system efficiency determinations. The prototype system involved the installation by CDF personnel of piping, pump and tank to accumulate the discharge from the boiler house and other related sources, pass it through a coalescing oil/water separator and monitor effluent oil content to determine the type and size of additional components needed to meet OEPA discharge requirements.

Phase B - Task 1 for removal and proper disposal of emulsions from two lagoon surfaces is complete for lagoon 1. The remaining part of this task, involving lagoon 2, will begin after the separators Y and B are both operating and discharges of (clear) effluent can be diverted to lagoon 1 or 3.

Phase B - Task 2 to determine volume and character of affected materials in the lagoons is now complete.

Phase B - Task 3 for remediation of lagoons 1 and 2. Last year a contract for \$222,500 was awarded to Critter Company, the lower of two bidders, for bioremediation of an estimated 9,000 cubic yards of sludge and oil contaminated soil from the two lagoons. Lagoon 1 was emptied of oil, water and contaminated soil and residual material in the cavity is being bioremediated in situ. Contaminated soil was transported and is being treated in a bio-cell located on CDF property. Critter has reneged on the contract, claiming that the hydrocarbon level of the biocell soil is higher than they expected, based on tests originally conducted by Hammontree. Legal action is now underway. In the meantime, CDF has assumed the duty of maintaining and turning material in the biocell and arranging for periodic hydrocarbon testing. In addition, numerous alternatives for final use of the biocell material have been explored and several are being further evaluated.

While lagoon 1 is being remediated, lagoon 2 continues to be used for process water discharge. At our request, Hammontree has prepared a proposal ~~for~~ for lagoon 1 to permit its restoration for use as a receptacle for treated process waters so that remediation of lagoon 2 can be undertaken.

Best regards,

WKC:mp

cc: FHZollinger

JPBressanelli

K.Houseknecht

*File
Environmanta*

2(b), 3, 1(c)

*Let me know
if you need change
Bett*

Subject: Progress Report On Audit Action Plan
Project III-New Pre-treatment System and Lagoon
Remediation

Following is a progress report on Project III described in the March 31, 1993 Canton Drop Forge Audit Action Plan.

Phase A - Process water pre-treatment system

Task I - Delineate scope of work required, develop system concept, design system and file request for permit to install.

Current Status

Measurement of volumes of oil/water effluents.

Lagoon #1

- Source #1 Storm water only point is normally submerged. No flow has been estimated.
- Source #2 Abandon drain from upsetter pits. The writer has never observed a flow from this line.
- Source #3 Storm sewer and process water from the north end of the forge shop. This flow is highly variable due to the impact of rain and the condition of water retaining devises on the rotary hearth forge furnaces. Typical process water volume is estimated at 30 GPM. ✓
- Outflow #4 This is the pump to transfer water from lagoon #1 to lagoon #2. ✗
- Source #5 Storm sewer and process water from the center of the forge shop. This flow is highly variable due to the impact of rain and the condition of water retaining devises on the rotary hearth forge furnaces. Typical process water volume is estimated at 24 GPM. ✓
- Source #6 Storm sewer and process water from the south end of the forge shop. This flow is some what variable due to the impact of rain and the amount of condensate from the high pressure steam line. Typical process water volume is estimated at 1.5 GPM. ✓

Lagoon #2

- Source #7 Storm water and process water from lagoon #1 (Outflow #4); low pressure steam condensate from the steam/condensate separators at the north end of the forge shop, at the end of the anvil heater lines, prior to the hot process softener, and at the end of the heater line to the forge shop offices; blow down from the hot process softener; drain water from the scrubber; storm water from the east end of the shop; and blow down from the boilers.

The condensate from the low pressure steam lines is of concern due to the presents of oil. The total flow from the four sources is less than five GPM.

Source #8 Storm water from the office parking lot, storm water from the die shop roof, drain water from the cooling tank in the south end of the die shop.

Outflow #9 This is the pump to transfer water from lagoon #1 to lagoon #2.

Analyses to identify effluent constituents.

Lagoon #1

A composite sample from Sources #3, #5 and #6 was analyzed for the following.

- 7 METALS
- BOD, 5 DAY
- OIL/GREASE
- pH, LAB
- SPECIFIC GRAVITY
- RESIDUE, NONFILTERABLE (SUSPENDED)
- VISCOSITY (@ 100 C)
- 90 CHEMICALS
- 18 PESTICIDES
- 7 PCB'S

The oil/grease at 82 MG/L was the only significant result. This is close to the 100 MG/L limit for Massillon and too high for storm water.

Lagoon #2

A composite sample of low pressure steam condensate from the steam/condensate separators at the north end of the forge shop and at the end of the heater line to the forge shop offices was analyzed for the following.

- 7 METALS
- BOD, 5 DAY
- OIL/GREASE
- pH, LAB
- SPECIFIC GRAVITY
- RESIDUE, NONFILTERABLE (SUSPENDED)
- VISCOSITY (@ 100 C)
- 90 CHEMICALS
- 18 PESTICIDES
- 7 PCB'S

CDF005124

The significant results are as follows.

- BOD, 5 DAY
- was 612 MG/L, Massillon reg. 300 MG/L

OIL/GREASE

was 2500 MG/L, Massillon reg. 100 MG/L

RESIDUE, NONFILTERABLE (SUSPENDED)

was 1020 MG/L, Massillon reg. 300 MG/L

Quotations from producers or designers of pre-treatment equipment.

Hammontree & Associates, Limited

Preliminary design and report ----- \$17,400.00

Michalek & Associates, Inc.

Design for re-route of existing piping ----- \$3,345.00
Size oil separator for 100 gpm capacity ----- \$6,000.00 > ENGR.
ONLY

Highland Tank & Mfg.

Complete 100gpm (10ppm) separator ----- \$10,053.00 ✓

Hudson Industries

Complete 100gpm (15ppm) separator ----- \$17,140.00

Preliminary discussions with Massillon Industrial
Pre-treatment Division.

Massillon is considering our request to investigate the possible discharge of treated condensate and treated scrubber water. Massillon is currently facing a possible EPA fine for not meeting discharge limitations on mercury, cyanide, and solids. This possible fine is making it difficult for them to consider any new sources.

Phase B - Remediation of lagoons #1 and #2

Task I - Remove and properly dispose of oil/water emulsion.

Current Status

17,568 gallons of oil/water emulsion have been removed. A pump and skimmer is currently on site from Hudson Industries. This pump is sized to pump 100 GPM. As soon as the weather warms up a few degrees this system will be tested. If successful the system will be rented for a set cost per week and pumping will begin immediately.

3, 2(b)

Memo to Jerry Bressanelli
Subject: Remediation Update
Date: 9/12/95
From: Keith Houseknecht

Separation of Oil From Steam

Parts for the exhaust steam meter are in the stock room.
Plans are being made to install the meter.
Unit Drop Forge has steam exhaust equipment similar to ours.
There separation tank has a steel wool like material inside the tank to aid separation.
There separation tank has a shower after the steel wool to knock down the oil.
The shower increases the effluent volume.

Separation of Oil From Condensate

Eaton Corp. as well as W-G uses dissolved air floatation to break emulsions
I have information from Krofta, a mfg. of DAF equipment.
My plan is to send a sample of our condensate to them for initial evaluation this week.
An onsite demonstration may be available by the middle of October.
Diversey and North Coast Environmental are not optimistic about breaking the emulsion
with chemicals and Ph adjustment.

Separation of Oil From Process Water

Drawings for the collection line on the west side of the forge shop, the grease trap and
the separator discharge line should be ready for review this week.
Installation of the above should begin by October 1.
It is our intention that these be put into service ASAP
When these are in service water from the grease trap will be pumped to pond #2
The separator will be installed at a later date.

Bio Cell for Pond #1

The material has been placed in the cell.
The material has been mixed and seeded 2 or 3 times.
The hydrogen peroxide has not been used
A hydroseeder was used to apply the last batch of microbes on Aug. 25.

HAMMONTREE & ASSOCIATES, LIMITED

2(b)

RECORD OF TELEPHONE CALL

DATE 9/12/95 TIME 2:00

PROJECT BIOREMEDIATION

TELEPHONE NO. 520-299-9808

FAX NO. _____

TO Jerry Coons OF Critter Co.
FROM G&H OF H & A

SUBJECT DISCUSSED

ACTION TO BE TAKEN

STATUS

1. STILL TREATING
2. MAY WANT TO SAMPLE IN ABOUT 2 WEEKS
3. BIO-CELL TO BE "TURNED" SATURDAY THE 16
OR SAT SEPT. 23.
4. HE HAS ATTORNEY TRYING TO GET CHANGE
ORDER PROCESSED - HIS ATTORNEY HAS BEEN
IN CONTACT w/ CDF'S ATTORNEY
5. 4-5 INOCULATIONS TO DATE
6. THEY ARE TRYING TO STIMULATE OIL EATING
BUGS AND NOT STIMULATE THE NON-OIL
EATERS.

July 28, 1997

2(b), 1(c), 3

TO: W. K. Cordier

FROM: J. P. Bressanelli

SUBJECT: Restoration of Lagoon #1

REFERENCE: Memo, Ed Karkalik, Parsons Engr. to me, 7/25/97

The reference memo indicated that Beaver Excavating was the low bidder for the subject work. However, they bid \$264,464, whereas Parson had previously estimated \$173,000 for the construction work. Parsons's estimate was provided before their engineering work on which Beaver's bid was based was completed.

Parsons has reviewed the specifications included in the RFQ, their estimate and Beaver's bid and have reached the following conclusions:

- 1) Their estimate did not include the following items:
 - a. Performance Bond \$2,125
 - b. Contractor's survey \$3,000
 - c. Grading/Seeding of biocell area. \$4,500
 - d. Additional clay \$17,080
 - e. Outflow extension into lagoon \$2,000
 - f. In-situ stabilization of lagoon bottom. \$10,823
 - g. Total \$39,448
- 2) Based on 1), their current estimate is \$212,528.
- 3) Beaver's bid contained the following items that Parsons feel are unnecessary or overly priced:
 - a. Reduce height of sewer exit \$16,200
 - b. Reduced cost of testing fly ash \$10,000
 - c. Stabilization in-situ, not remotely . . . \$7,000
 - d. Performance Bond \$2,600
 - e. Total \$35,600
- 4) Based on 3), Beaver's bid would be \$228,864.

A meeting with Parsons and Beaver is scheduled for Monday, August 4 to try to resolve these differences. In any event, it looks like the cost of the construction phase of this project will be \$210,000 to \$230,000 rather than \$173,000 as originally estimated by Parsons.

cc: WDP
KJH
FHZ

JPB:lab

CDF005128

YTD purchase costs of normal billet decreased by \$244,200, 3.4 percent over 1996, due largely to a \$205,600 decrease in stainless steel costs. Cost reductions have saved an additional \$19,900, 4.8 percent. The net change has been a decrease in purchased costs of \$264,100 or 3.5 percent.

VII. Other Developments

The new 1000 ton HPM press is now being scheduled for production. Forge crews continue to be trained in its operation.

Hanjung's production of the anvil for our 35,000 pound hammer remains on schedule for shipment by October 15. Initial heat treatment was completed by June 25.

A forged 35,000 pound ram, essentially of an AISI 4350 composition, was ordered in June from Hanjung. The ram is scheduled for delivery with the new anvil.

A report on the status of our ISO 9002 efforts was recently (7/1/97) provided to you. SRI of Pittsburgh has been selected as our ISO registrar.

Considerable progress was made in our Audit Action Program with four contracts, as follows, issued to Parsons Engineering Science, Inc.:

- An engineering design and project management contract for \$27,000 was issued for the restoration of lagoon #1 using biocell material. A pre-bid meeting was held on July 11 with three construction companies for the actual work. Their bids are due by July 21. Construction is to be completed by September 15.
- A contract for \$6,600 was issued for evaluation of various filters for removing emulsified oil from the condensate of our Boiler House separator. Filtration was found to be effective in bench testing. If filtration is found to be equally effective in full scale tests, the filtered effluent can be discharged directly to the lagoons or to the municipal sewer system, with the authority's approval. This contract will be completed by September 8.
- A \$14,300 contract was let for sampling, analysis and feasibility study for in-place stabilization of the contaminated soil of lagoon #2. This contract is to be completed by the end of July.
- A \$2,600 contract for a conceptual design and cost estimating service for a temporary by-pass drainage system from lagoon #1 directly to lagoon #3, when lagoon #2 is being restored, was issued. This work will also be completed by the end of July.

Canton Drop Forge

Environmental Projects Status
as of July 25, 1997

Canton Drop Forge, Inc. Authorizations			Parsons Engineering Science, Inc. Implementation/Status		
P.O. Number	Description	Amount	WBS	Status of Work	Amount Spent
98072	Lagoon #1 / Biocell Study	\$17,909	731397-01000	Complete, final report issued, minor ODCs pending.	\$16,566
98867	Lagoon #1 Sewers	\$1,600	731397-02000	Complete.	\$1,600
98575	Lagoon #1 Design/Construction	\$26,927	731397-03000	Design complete, contract under negotiation.	\$13,506
98576	Lagoon #2 Sampling	\$14,317	731397-04000	Sampling complete, awaiting results of analyses.	\$2,373
98622	Lagoon #2 Bypass Pre-Design	\$2,600	731397-05000	Field measurements complete; pre-design to start after Lagoon #1 under contract.	\$1,038
	Subtotal	\$63,353		Subtotal	\$35,083
98252	Condensate Sampling	\$7,000	731549-01000	Complete; draft report issued; minor ODCs pending.	\$6,318
98623	Condensate Testing	\$6,600	731549-02000	Equipment received; tests complete, awaiting results of analyses.	\$5,046
	Subtotal	\$13,600		Subtotal	\$11,364
	TOTAL	\$76,953		TOTAL	\$46,447

CDF005130

2 (b)

PARSONS ENGINEERING SCIENCE, INC.

26

19101 Villaview Road, Suite 301 • Cleveland, Ohio 44119 • (216)486-9005 • Fax:(216)486-6119

DATE: 8/6/97

TO: Mr. Keith Hovseknecht
LOCATION: Canton Drop Forge
RAPIDFAX NO.: (330) 477-2046
COPIES TO:

FROM: Ed Karkalite

TOTAL NUMBER OF PAGES 2 (including this cover letter)

IF YOU DO NOT RECEIVE ALL THE PAGES, PLEASE CALL BACK AS SOON AS POSSIBLE.

We are herewith transmitting the following:

DATE	NO.	DESCRIPTION
8/6/97		Environmental Projects Status

Dear Keith -

Here is a summary review of all the projects we are currently working on for you. This should help de-code the WBS system we use on invoices; nevertheless, we will get the right PO# on each invoice from now on. Please note that some invoices may have two or more PO#s on them, but the costs will be broken out by job.

I'll send a status update to you each month, usually about the time (or before) each invoice is sent.

Sorry for any inconvenience this may have caused you or your accounting folks,

Ed

CDF005131

JOB NO. 731397.03000

02000C02

AUG-21-97 THU 10:36 AM

HAMMONTREE&ASSOC. LTD

FAX NO. 3304990149

P. 01/02

TO: KEITH HOUSEKNECHT

FROM: Gene Hill @ HAMMONTREE fax 499-0149 1/2

CANTON DROP FORGE INDUSTRIAL PRETREATMENT

P.O. #98072	\$17,909	ASSESSMENT	
DATE	INVOICE AMT.	INVOICE NO.	DESCRIPTION
5/6/97	\$ 1,244.36	696664	Parsons
6/22/97	\$ 12,153.68	741150	Parsons
7/11/97	\$ 1,467.87	755148	Parsons
TOTAL INVOICED	\$ 14,865.91		

P.O. #98252	\$7,000	INVESTIGATION	
DATE	INVOICE AMT.	INVOICE NO.	DESCRIPTION
6/16/97	\$ 2,497.55	725147	Parsons
7/8/97	\$ 3,692.85	755151	Parsons
8/8/97	\$ 127.60	810971	Parsons
TOTAL INVOICED	\$ 6,318.00		

P.O. #98602	\$2,600	DRAINAGE DESIGN	
DATE	INVOICE AMT.	INVOICE NO.	DESCRIPTION
6/22/97	\$ 1,168.29	741150	Parsons
7/11/97	\$ 31.61	755148	Parsons
TOTAL INVOICED	\$ 1,199.90		

P.O. #98623	\$6600	DEMULSIBILITY	
DATE	INVOICE AMT.	INVOICE NO.	DESCRIPTION
7/7/97	\$ 157.50	95449	C.T.C.
TOTAL INVOICED	\$ 157.50		

P.O. #98623	\$6,600	FILTRATION TEST	
DATE	INVOICE AMT.	INVOICE NO.	DESCRIPTION
7/8/97	\$ 1,141.24	755152	Parsons
8/8/97	\$ 3,904.26	802112	Parsons
TOTAL INVOICED	\$ 5,045.50		

P.O. #98575	\$26,927	LAG 1 ASSESS.	
DATE	INVOICE AMT.	INVOICE NO.	DESCRIPTION
7/11/97	\$ 1,390.57	755149	Parsons
8/6/97	\$ 12,115.09	802109	Parsons
TOTAL INVOICED	\$ 13,505.66		

P.O. #98576	\$14,317	LAG 2 ASSESS.	
DATE	INVOICE AMT.	INVOICE NO.	DESCRIPTION
8/6/97	\$ 2,468.41	811452	Parsons
TOTAL INVOICED	\$ 2,468.41		

- Can you please provide me with the info. that I am missing?

P.O. #
&
AMOUNT?

P.O. #
&
AMOUNT?

I need to make sure that I know these items to provide the "Engineers" certificate.

Thanks
Gene

AUG-21-97 THU 10:36 AM

HAMMONTREE&ASSOC. LTD

FAX NO. 3304990149

Page 2

P. 02/02

2/2

P.O.
Amount?

CANTON DROP FORGE INDUSTRIAL PRETREATMENT

P.O. #98867	<u>1,600.00</u>	LAG 2
DATE	INVOICE AMT.	INVOICE NO. DESCRIPTION
7/23/97	\$ 400.10	795203 Parsons
TOTAL INVOICED	\$ 400.10	

P.O. #98622	\$2,600	LAG 2 BYPASS PREDES.
DATE	INVOICE AMT.	INVOICE NO. DESCRIPTION
8/6/97	\$ 1,038.25	802110 Parsons
TOTAL INVOICED	\$ 1,038.25	

0405-554



CANTON DROP FORGE

TELECOPIER COVER SHEET

2(b), 1(c)

PLEASE DELIVER THE FOLLOWING PAGES TO:

NAME: Gene Hill
FIRM: _____
CITY: _____
PHONE: _____

FROM:

NAME: Keith Housknecht
FIRM: CANTON DROP FORGE
CITY: CANTON, OHIO

TOTAL NUMBER OF PAGES 3 INCLUDING COVER SHEET.

WE ARE TRANSMITTING ON THE FOLLOWING:

DATE: _____
TIME: _____

IF YOU DO NOT RECEIVE ALL PAGES - PLEASE CALL BACK AS SOON AS POSSIBLE.

TELEPHONE: (330) 477-4511, EXT. 188

=====

CDF005134

Canton Drop Forge, Inc.Environmental Projects Status
as of August 29, 1997

Canton Drop Forge, Inc. Authorizations			Parsons Engineering Science, Inc. Implementation Progress/Status		
P.O. Number	Description	Amount	WBS	Status of Work	Amount Spent
98072	Lagoon #1 / Biocell Study	\$17,909	731397-01000	Complete, minor ODCs pending	\$16,869
98867	Lagoon #1 Sewers	\$1,600	731397-02000	Complete.	\$1,600
98575	Lagoon #1 Design/Construction	\$26,927	731397-03000	Construction underway, 20% complete. PROJECT 65% Comp	\$17,292
Pending	Lagoon #1 Contract Negotiation	\$2,867	731397-03001	Contract Notice Of Award issued 8/21	\$2,867
Pending	Lagoon #1 Add'l Constr'n Observation	\$1,000	731397-03002	Pending progress within original authorization.	\$0
98576	Lagoon #2 Sampling	\$14,317	731397-04000	Report issued; lab invoices and ODCs pending.	\$3,734
98622	Lagoon #2 Bypass Pre-Design	\$2,600	731397-05000	Pre-design underway; report expected 9/19.	\$1,549
Subtotal		\$67,220	Subtotal		\$43,911
98252	Condensate Sampling	\$7,000	731549-01000	Complete; minor ODCs pending.	\$6,446
98623	Condensate Testing	\$6,600	731549-02000	Complete; report issued; sampling plan developed.	\$6,600
Subtotal		\$13,600	Subtotal		\$13,046
TOTAL		\$80,820	TOTAL		\$56,957



2(b)

July 30, 1993

TO: J.P. Bressanelli
FROM: K. Houseknecht
SUB: Remediation Update

Larry Phillips received the two letters from R & R regarding PCB, Barium & Hydrocarbon remediation. The letters will be sent to Bill Cordier.

One thousand gallons of spent die lube is ready for recycling by Dubro Oil Corporation. Fifty five gallon open top drums have been ordered for shipping this material.

Six thousand gallons of oil from Lagoon #1 was shipped out on 7/29/93. This material will be disposed of through a fuels blending program by Research Oil (P.O. #89538). This material will have a manifest for our records only. It is not a hazardous material.

KJH/kam

A handwritten signature, likely of K. Houseknecht, written in cursive.

cc: W.K.Cordier
L.L.Stalnaker

CDF005136

**CANTON DROP FORGE
ENVIRONMENTAL ISSUES
December 29, 1997**

*REVIEW NEEDED
TO JERRY 11/11/98
KTH
2(b), 8*

DEC. 30. 1997 5:04PM
F&L 2974994

ISSUE	DESCRIPTION	COSTS
I. REMEDIATION ISSUES		
<u>Lagoons</u>		
<ul style="list-style-type: none"> Lagoon #1 <ul style="list-style-type: none"> On-going remediation Lagoon #2 <ul style="list-style-type: none"> On-going remediation * Lagoon #3 <ul style="list-style-type: none"> MW-8 at SE corner near Lagoon #3 (1993) showed oily goop at approximately 4 ft. ODOT plans to install 6' diameter, 20' deep stormsewer on SE corner of property near Lagoon #3. 	<p align="center"><i>COMPLETE</i></p> <ul style="list-style-type: none"> Lagoon #1 - Bioremediation of contaminated soil is <u>on-going</u> Restoration of Lagoon is scheduled to be completed during early 1998. Lagoon #2 - Remediation of oil-impacted soils not required by OEPA, according to CDF consultant. Elimination of discharge of oil-bearing waste streams is required. Will achieve elimination by combining boiler house effluent with oil-free waste stream from hot process softener. <i>EFFLUENT TO SEWER</i> Lagoon #3 - No plan has been developed to further assess and/or address impacted soil or groundwater. There is concern that construction of a planned ODOT stormsewer could involve the impacted soil adjacent to lagoon, which could trigger OEPA involvement. <i>& WATER</i> 	<p align="right"><i>BYPASS LINE SUCTION LINE & REDUC FLAPPER VALVE FLOAT SWITCH LINING SLIPPED EXCAVATED TOP SUCTION SCREEN</i></p> <ul style="list-style-type: none"> Lagoon #1 \$265,000 <i>→ 95% COMPLETE</i> Lagoon #2 \$120,000 <i>OIL IN ALWAYS AS STORM WATER WILL NEED TO MAINT.</i> No cost projections have been made for possibility that further investigation or remediation is required. Facility is negotiating with ODOT to locate stormsewer off CDF property.

NO. 8283 1. 3

→ WATER LEVEL MAY BE THE BIGGEST ISSUE

2(b)

CDF005137

ISSUE	DESCRIPTION	COSTS
<p><i>No records</i></p> <p>Hazardous Waste</p> <ul style="list-style-type: none"> • Historical on-site (county licensed) landfill for all manufacturing-derived wastes. * • OEPA investigated (1983) drums buried along edges of Lagoon #2. * • Past off-site disposal sites: <ul style="list-style-type: none"> Huth Oil site Summit National Superfund site • Current sites: Research Oil, Canton-Akron Waste Oil, and Puritech Recycling MINERAL SPIRITS & KEROSENE • On-Site PCB transformers • PCB-impacted soils near B-6 <p><i>Disposed of most CAPS</i></p> <p><i>RETPO FILLED #8</i></p>	<ul style="list-style-type: none"> • On-site landfill operated until 1980. Unable to determine from available information whether impacts exist that require remediation. • OEPA completed investigation of drums, but no agency action taken. Information not available as to whether drums were removed. • Evidence that CDF was wrong party and was not involved at Huth Oil site. Facility expects no further involvement. • CDF participated in Summit National de minimis buyout. • Have no information on status of currently used disposal facilities. • <u>There is no evidence of leakage.</u> No information provided on handling, if any, of transformer oil. • 1993 assessment showed relatively low detects at B-6. Plan to remediate PCB-impacted soils has been abandoned as unnecessary, on advice of consultants. 	<ul style="list-style-type: none"> • Potential for future remediation exists, but likelihood, scope or cost cannot be determined at this time. • Any potential costs cannot be determined based on current information. • No costs expected (Huth). • No further costs expected (Summit). <p><i>NOT A CALL TO ACTION</i></p> <p><i>SHOULD WE AUDIT SITES?</i></p> <p><i>CLEAN UP NOW. CAPS ISSUES</i></p> <ul style="list-style-type: none"> • Need more information to determine whether transformers present any issues. <ul style="list-style-type: none"> 1 DIE SHOP 2 MAIN 4 MAIN • Need more information to evaluate decision to conduct no remediation. <p><i>< \$1,000 RETPO FILL</i></p>

CDF005138

S.D. MYERS
TESTING
CAP DISPOSAL
RETPO FILLING

CDF
INSPECTIONS

4-PURE PCB
(5-6-7-9)

ISSUE	DESCRIPTION	COSTS
<p><u>Other (Water/Soil)</u></p> <ul style="list-style-type: none"> Groundwater impact (reported in 1993 assessment) adjacent to Lagoon #3. B-8 (soil) had elevated VOCs, strong hydrocarbon odor, sheen on groundwater at approx. 4 - 6 ft. related to Lagoon #3. B-6 (soil) had detects of TPH (possibly related to historical landfill). 	<p>Groundwater near Lagoon #3 (MW-8) is near surface. 1993 investigation showed impacts, probably from Lagoon #3. Report stated that CDF personnel said that on-site well-testing showed no contamination of deeper groundwater. No additional testing of groundwater has been conducted since 1993; monitoring well system remains in place. According to facility, OEPA has not been concerned with soil or groundwater at site.</p>	<p>Potential exists for future requirements for remediation. Based on current information, likelihood, scope or cost of any remediation cannot be determined.</p>
<p>II. PAST COMPLIANCE ISSUES</p>		
<p><u>Air</u></p> <ul style="list-style-type: none"> Compliance with existing permits for boilers <ul style="list-style-type: none"> Stack testing needed for boiler #1 (coal) Boilers #2 and #3 (gas) have no usable backup fuel Permit reportedly allows operation of 2 gas boilers only - NOT TRUE LOCAL AIR AGENCY INTERPRETATION 	<p>Has been disagreement between facility and OEPA as to whether permits allow operation of all 3 boilers and as to what backup fuel is allowable. When third boiler operates, exceed permit limits; when operate gas boilers on backup fuel, exceed permit limits.</p> <p>Past contact with OEPA Air Unit, but no Notices of Violation.</p>	<p>Potential exists for penalties to be imposed for past permit exceedances; however, have no information that OEPA anticipates enforcement or penalties.</p>

Hole 8

Joc's

LEVEL RELATED IS NOT SHEEN

2' OUT 24'

30'-50' - Hammerage 400' ON GOING

3 LEVELS 1 PERCHES 30-50' 400' LOTS OF TEST BOUND AND NO MONITORING

TIE TO ODOT PAGE 1

ON GOING DEEP TESTING

CAM RULES CONTINUOUS AIR MONITORING BASED ON LETTER NOT PERMIT

NOT TRUE 2 GAS & 1 COAL

2 Boilers w/stack OK

NOT THAT I KNOW OFF

#6 OIL IS ALLOWABLE BUT ONLY

98, 8, 8, 8 MM BTU/HOUR 49 mm BTU/HOUR OIL ASSUMED

ISSUE	DESCRIPTION	COSTS
<p><u>Hazardous Waste</u></p> <ul style="list-style-type: none"> On-Site disposal <ul style="list-style-type: none"> Forge Shop floor scrapings - TCLP Construction/demo material - INSEPT FLY ASH - TCLP HPS LIME - TCLP Empty oil drums storage In-ground on-site drying of sludge Asbestos program not in place <p><i>procedure?</i></p> <p><i>10712</i></p> <p><i>fuller</i></p> <p><i>jit</i></p>	<ul style="list-style-type: none"> Facility believes materials are non-hazardous and therefore disposes of them as solid waste. <ul style="list-style-type: none"> Floor scrapings: disposed in approved landfill. Construction/demo material: disposed on-site. - LITTLE ON SITE APPROVED LANDFILL Have no information on storage procedures. In-ground drying of coal boiler scrubber sludge (flyash) and HPS lime sludge (from yearly cleaning); transported off-site for disposal. Facility believes sludge is non-hazardous solid waste. <i>TCLP</i> OSHA requires development of an asbestos management program. Have no information on any other OSHA-related issues. <i>LIST COULD BE DEVELOPED COMBUSTION SAFETY</i> 	<ul style="list-style-type: none"> Costs, if any, for bringing facility into compliance not determined. <p><i>TO THE BEST OF MY KNOWLEDGE WE ARE OK (TCLP MORE OFTEN)</i></p> <p><i>label's storage</i></p> <p><i>WHO HAS THE NEED</i></p> Need additional information to assess whether various wastes are non-hazardous and to determine whether treatment and storage procedures comply with applicable regulations. Cost to develop asbestos management program has not been determined. Have no information needed to assess whether there is potential for OSHA penalties for this or other OSHA compliance issues.

+ RON GIDERTT DONUT CORP
+ CHARLIE GOARINZ
+ SAFETY COMMITTEE

ALL PLANTS HAVE GREAT POTENTIAL FOR PENALTIES

ISSUE	DESCRIPTION	COSTS
III. FUTURE COMPLIANCE ISSUES <i>AT LEAST 6mo TO DRAFT & 1 YEAR FINAL</i>		
<u>Air</u> <ul style="list-style-type: none"> Title V application submitted <i>when approved to be received</i>	<i>1ST 3RD JUST GETTING DRAFT & FEW FINAL</i> CAM RULES LOCAL HOLD STACK TEST FOR CAM Title V permit included application for all <u>necessary permits according to facility</u> . Have not been able to confirm from information provided. <i>NO-NEED</i>	<i>I DON'T KNOW WHAT THIS RELATES TO</i> <ul style="list-style-type: none"> Need to determine whether permit shield applies to protect from past lack of permits. <i>4,900</i> <i>ABOUT 15 KEY PERMITS</i>
<u>Wastewater Treatment</u> <ul style="list-style-type: none"> County Sewer System objects to discharge from hot process softener 	<i>confirmed?</i> <ul style="list-style-type: none"> Plan to eliminate lime from discharge. Then modification of discharge process is planned as part of Lagoon #2 remediation; HPS waste stream will be combined with oil bearing waste stream from steam exhaust system and treated in lagoon system. 	<ul style="list-style-type: none"> Included in cost for Lagoon #2 remediation
<ul style="list-style-type: none"> Possibility that <u>restrooms</u> discharge to leachfield and <u>showers</u> discharge to Lagoon #2 <i>INDIE SHOP</i> <i>IN MAIN OFFICE</i> 	<ul style="list-style-type: none"> Have been statements that restrooms discharge to a leachfield and that showers discharge to Lagoon #2, but is no reliable information to confirm or deny. 	<ul style="list-style-type: none"> If confirmed, re-route discharge to sanitary sewer; cost not determined.

SANITARY

OW — ANVIL CONDENSATE
 OW — EXHAUST " "
 OW — HPS " "
 LOW — HPS BLOW DOWN
 — SCRUBBER WATER

ISSUE	DESCRIPTION	COSTS
<p><u>Tanks</u></p> <ul style="list-style-type: none"> • UST for quench oil must be removed/upgraded by December 1998 ^(*) <i>+ check around</i> • ASTs (6) need reinstallation - <i>CONTAINMENT</i> • One AST (oil) should be scrapped. <i>20,000 GAL</i> • Approximately 10 ⁸ tanks for storage of heating oil for furnaces 	<ul style="list-style-type: none"> • No known impacts from existing tanks. • Upgrade/reinstallation/removal of <u>tanks</u> must be performed by deadlines. <i>ONE</i> • Facility believes tanks are exempt from UST regulations. 	<ul style="list-style-type: none"> • Potential future penalties if upgrade/removal work not conducted. • Costs for required tank work need to be determined. <i>INSPECTION NEXT STEP</i> • <i>WHO, WHAT INFO</i> <u>Need</u> further information to determine whether heating oil tanks are exempt from regulation.
<p><u>Hazardous Waste</u></p> <ul style="list-style-type: none"> • No written procedures • Not a generator of hazardous waste <ul style="list-style-type: none"> - Plant A (12th Street) sold in 1983 (generated cyanides, chromium) - Current plant generates no hazardous waste 	<p><u>PARSON REPORT</u></p> <ul style="list-style-type: none"> • Facility believes it currently generates no hazardous waste. No information was reviewed that would confirm or deny. 	<p><i>1,500</i></p> <ul style="list-style-type: none"> • <u>Costs for determining</u> compliance with hazardous waste regulations not determined. • Costs, if any, for bringing into compliance not determined.

Minor Source

*KEROSENE
MINERAL SPIRIT
HYDROCLORIC ACID*

*Is this true
Scrub oil
diesel collector
off oil
Waste oil*

ISSUE	DESCRIPTION	COSTS
<p><u>Other (Water/Soil)</u></p> <ul style="list-style-type: none"> Public water system (2 on-site drinking water wells) Stormwater <p>S/B OK</p>	<ul style="list-style-type: none"> CONTACT TIME → PIPE CHANGES Full-time operator required per OEPA; facility currently uses a consultant. Intermittent coliform exceedances are ? treated with chlorine. OEPA has instituted a drinking water initiative that may result in increased attention. AT THE TAP SQG? ATTENTION & GROUND Stormwater goes to lagoon system; no off-site discharge; facility believes no permit required. Have no information to confirm or deny. 	<p>TRAIN EXISTING</p> <ul style="list-style-type: none"> Cost of hiring full-time operator has not been determined. Potential exists for penalties for future exceedances. Costs of increased agency focus on quality of on-site drinking water wells has not been determined. WILL BE ON WAIST STREAMS WATER POLLUTION POTENTIAL Cost to evaluate whether in compliance with stormwater requirements not determined.

Action Successful?



CANTON DROP FORGE

2(b), 1(c), 3

September 24, 1996

Mr. John L. Hobey
President
The Olofsson Corporation as
CEI Group Agent
P.O. Box 27308
Lansing, MI 48909

Dear Jack:

Following is a progress report on each of the three projects described in the March 31, 1993 Canton Drop Forge Audit Action Plan.

Project I - PCB Remediation

The plan was to complete soil tests, specify scope, prepare a remediation action plan and file that plan (if required) with OEPA. Actual remediation activity was to occur after receiving OEPA approval of the plan.

After consultation with Hammontree & Associates, R & R International and Day, Ketterer, plus individual inquiries elsewhere, plans for PCB remediation were abandoned. That decision followed verification that regulations would permit use of refill soil containing higher levels of PCB than the very low PCB levels in the "contaminated" soil to be removed.

No further action contemplated on Project I.

Project II - Remediation of Area Near Hole 8

There has been no further action on this project, because CDF technical personnel and the external consultants have had to concentrate all of their attention on the (more complex than envisioned) work of Project III (see below).

Project III - Pretreatment System/Lagoon Remediation

Phase A - Task 1 of this project comprising three subtasks, is for delineation of scope, concept development, final design and permitting of a new process water pretreatment system.

Subtask (1a) for determining and/or estimating effluent flow rates is completed.

Subtask (1b) for analyses and determination of constituents of effluents and surface emulsions from lagoon 1 is also completed (see Phase B, Task 1). The only problem constituents found were oil/grease and residues (suspended solids).

CDF005144

Subtask (1c) is for selection of potential designers of (and equipment producers for) the pretreatment system, obtaining their quotations, selecting the preferred designer, agreeing on a final design and filing for permits to install, if required.

Subtask (1c) continued

Requests for quotes were sent to three potential builders of the pretreatment system and responses were received from two (FBA Environmental and Workman Industrial Services). Both bidders quoted a pretreatment system comprising two separators -- "separator Y" to process discharge from the forge shop and nearby areas of the plant, and "separator B" to handle discharges from the remainder of the plant. Both bidders accepted the specified 10 PPM maximum oil content for treated discharge from separator Y, but neither would agree to a maximum oil content of treated effluent from separator B, which contains oil that is emulsified and is therefore extremely difficult to isolate and separate. Workman, the lower of the two bidders, was selected to install separator Y and to work with us further in developing an effective, reasonably priced separator B system. A contract for \$130,000 was signed with Workman for construction and installation of separator Y.

To assist in developing an appropriate design for separator B, a consultant with prior related experience was employed. Also, a number of companies that claimed to have systems that might be suitable for our needs were contacted. A specification and bid request was developed and issued for this separator (B).

Phase A - Task 2 is for construction and installation of the pretreatment system. As indicated above, Workman was awarded a contract to install separator Y, and installation was completed in late January. Some operational problems relating to the viscosity and tackiness of the grease and oil continue to be experienced with the system. However, the system is being routinely used to treat effluent from the plant proper prior to discharge into lagoon 2.

An RFQ for design and construction of separator B was sent to eight firms and their responses were due on March 22, 1996. All of the eight firms declined to quote, indicating that they were not willing to agree to a maximum level of oil in the discharge from a system because they were all uncertain of the potential efficiencies of any system in removing emulsified oil from the process stream. Numerous discussions and meetings have been held with potential system designers and a plan has been developed to install and operate a prototype system to provide a basis for system efficiency determinations. The prototype system involved the installation by CDF personnel of piping, pump and tank to accumulate the discharge from the boiler house and other related sources, pass it through a coalescing oil/water separator and monitor effluent oil content to determine the type and size of additional components needed to meet OEPA discharge requirements.

Phase B - Task 1 for removal and proper disposal of emulsions from two lagoon surfaces is complete for lagoon 1. The remaining part of this task, involving lagoon 2, will begin after the separators Y and B are both operating and discharges of (clear) effluent can be diverted to lagoon 1 or 3.

Phase B - Task 2 to determine volume and character of affected materials in the lagoons is now complete.

Phase B - Task 3 for remediation of lagoons 1 and 2. Last year a contract for \$222,500 was awarded to Critter Company, the lower of two bidders, for bioremediation of an

estimated 9,000 cubic yards of sludge and oil contaminated soil from the two lagoons. Lagoon 1 was emptied of oil, water and contaminated soil and residual material in the cavity is being bioremediated in situ. Contaminated soil was transported and is being treated in a bio-cell located on CDF property. Critter has reneged on the contract, claiming that the hydrocarbon level of the biocell soil is higher than they expected, based on tests originally conducted by Hammontree. Pending the outcome of the legal action which is now underway, CDF may assume, if necessary, the duty of maintaining and turning material in the biocell and arranging for periodic hydrocarbon testing. In addition, numerous alternatives for final use of the biocell material have been explored and several are being further evaluated.

While lagoon 1 is being remediated, lagoon 2 continues to be used for process water discharge. At our request, Hammontree has prepared a proposal for lagoon 1 to permit its restoration for use as a receptacle for treated process waters so that remediation of lagoon 2 can be undertaken.

Best regards,

A handwritten signature in cursive script, appearing to read "M.K. Cordier".

WKC:mp

cc: FHZollinger
JPBressanelli
✓K.Houseknecht

16
2

Canton Drop Forge, Inc.

Environmental Projects Status
as of October 31, 1997 - REVISED

Canton Drop Forge, Inc. Authorizations			Parsons Engineering Science, Inc. Implementation/Status		
P.O. Number	Description	Amount	WBS	Status of Work	Amount Spent
98072	Lagoon #1 / Biocell Study	\$17,909	731397-01000	Complete, closed.	\$17,340
98867	Lagoon #1 Sewers	\$1,600	731397-02000	Complete, closed.	\$1,600
98575	Lagoon #1 Design/Construction	\$26,927	731397-03000	Construction suspended, pending approval of revised plan.	\$26,221
98575-1	Lagoon #1 Contract Negotiation	\$2,867	731397-03000	Complete.	\$2,867
Pending	Lagoon #1 Add'l Constr'n Observ'n	\$0	731397-03002	Pending approval of revised plan.	\$0
98576	Lagoon #2 Sampling	\$14,317	731397-04000	Complete, closed.	\$14,317
98622	Lagoon #2 Bypass Pre-Design	\$2,600	731397-05000	Complete, closed.	\$2,600
	Subtotal	\$66,220		Subtotal	\$64,945
98252	Condensate Sampling	\$7,000	731549-01000	Complete, closed.	\$6,711
98623	Condensate Testing	\$6,600	731549-02000	Complete, closed.	\$6,600
	Subtotal	\$13,600		Subtotal	\$13,311
	TOTAL	\$79,820		TOTAL	\$78,256

2 (b)

Canton Drop Forge, Inc.

Environmental Projects Status
as of November 28, 1997

CDF005148

Canton Drop Forge, Inc. Authorizations			Parsons Engineering Science, Inc. Implementation/Status		
P.O. Number	Description	Amount	WBS	Status of Work	Amount Spent
98072	Lagoon #1 / Biocell Study	\$17,909	731397-01000	Complete; closed.	\$17,340
98867	Lagoon #1 Sewers	\$1,600	731397-02000	Complete; closed.	\$1,600
98575	Lagoon #1 Design/Construction	\$26,927	731397-03000	Final phase of construction underway; 95% complete overall.	\$26,927
98575-01	Lagoon #1 Contract Negotiations	\$2,867	731397-03000	Complete; closed.	\$2,867
98575-02	Lagoon #1 Add'l Constr'n Observ'n	\$5,990	731397-03000	Revised plan approved; work 50% complete.	\$2,087
98576	Lagoon #2 Sampling	\$14,317	731397-04000	Complete; closed.	\$14,317
98622	Lagoon #2 Bypass Pre-Design	\$2,600	731397-05000	Complete; closed.	\$2,600
Subtotal		\$72,210	Subtotal		\$67,738
98252	Condensate Sampling	\$7,000	731549-01000	Complete; closed.	\$6,711
98623	Condensate Testing	\$6,600	731549-02000	Complete; closed.	\$6,600
Subtotal		\$13,600	Subtotal		\$13,311
TOTAL		\$85,810	TOTAL		\$81,049

Today I
 told JPB
 to enter
 a copy of this
 letter to G...
 Done D. ...
 all the
 members
 12/8
 November 24, 1997

2(b), 3, 1(c)

TO: W. K. Cordier
 FROM: J. P. Bressanelli
 SUBJECT: Current Status Audit Action Plan

The following is the current status and forecasted costs to be incurred with the subject plan.

Lagoon 1:

Beaver Excavating began their work to restore Lagoon 1, but work was temporarily suspended because the banks of the lagoon were too steep for good structural stability of the clay lining and treated biocell materials. The decision has now been made to use some additional remnant material from the biocell area, after treatment with lime and flyash for structural stability, and some clean fill from an outside source to complete the project. Also, two catch basins near Lagoon 1 are desirable to prevent erosion from surface waters and to better channel storm water to the lagoon. Finally, to also prevent erosion of the clay layer where storm water lines exit into the lagoon, Parsons is recommending rip raps under each pipe. Costs to be incurred for the project are as follows:

• Original Contract (no payment made as yet)	\$219,600
• Net Prior Additions to the Project	2,000
• Incremental Cost for Decreasing Slope of the Lagoon	22,000
• Two Catch Basins with Lines to Lagoon 1	3,900
• Rip Rap Under Pipes	2,000
• Parson Project Supervision	6,000
• Bad Weather Contingencies - Beaver	8,000
- Parsons	1,500
TOTAL	\$265,000

Parson's work will include supervision of the removal and treatment of the remnant biocell material, approval of clean fill from an outside source and supervision of the installation of the fill materials and the clay lining in the remainder of the lagoon. The \$9,500 contingencies relate to the possible disruption of construction work due to

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rain, snow, heavy freeze, etc. This \$9,500 could be avoided by postponing further work until spring.

Lagoon 2:

According to Parsons, current *EPA* regulations require us to stop the discharge of oil bearing waste streams to lagoons, but do not require remediation of oil impacted soil on the bottom or around the lagoon banks. Therefore, I recommend that we do not remediate the oily soil on the banks or bottom of *Lagoon 2* at this time.

As part of the Audit Action Plan, we have been considering various means for eliminating oil from the condensate from our steam exhaust system (the main source of the oil discharge to *Lagoon 2*). A prototype separator tank has been installed, but most, if not all, of the oil is emulsified with the water. All methods proposed for eliminating the emulsified oil have been very complex and expensive.

At this point, we believe that the most cost effective way to deal with the oil in the effluent from the boiler house separator is to combine it with an oil-free process stream to dilute it to an acceptable level for potential discharge to the municipal sewer system.

Presently, we are discharging the stream from our hot process softener in the boiler house to the sewer system, with the authority's approval. However, recently the operator of the sewer lines found thick lime deposits in the sewer and traced it back to CDF. We must eliminate lime carryover to the sewer system from the hot process softener or find a new place to discharge this stream.

Current thinking is, to eliminate the lime in the discharge from the hot process softener with a system proposed by *Diversey Water Technologies* and *U.S. Filter* and then combine this oil-free stream with the oil bearing stream from the boiler water separator, diluting the oil content to a level hopefully acceptable to the *Massillon Sewerage Authority*. *Massillon's* approval of the volume and composition of the combined streams will be required. The estimated cost of the lime removal system is \$75,000 to \$90,000, with an additional \$10,000 to \$20,000 for hardware and plumbing to combine the two.

If we complete remediation of *Lagoon 1*, as outlined above, for \$265,000 or less and merge the boiler house effluent with an oil-free stream from our hot process softener (after installing a needed lime removal system) at a cost of \$110,000 or less, the total should be below \$375,000.

On November 21, there was \$140,000 left in the Escrow Account, which will be available to cover 60 percent of the next \$233,300 of costs. Therefore, it looks like the

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Escrow Fund will be reduced to zero by the end of the year upon completion of the restoration of *Lagoon 1* on December 15, weather permitting.

JPB/mkb

A handwritten signature in cursive script, appearing to read "Jerry".